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AUTHOR Mirkin, Phyllis K.; Higgins, Paul S.
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ABSTRACT

An independent research consultant was contracted to describe the operation of the Minneapolis Public Schools' Title I programs for Neglected and Delinquent (N & D) children, to critique the current methods used to evaluate N & D programs, and to suggest improved evaluation methods for the future. This publication consists of two parts, a preface and interpretative summary prepared by a member of the district's research and evaluation department, and the consultant's report. The consultant's report, which makes up most of the publication, is divided into three parts. Part 1 reviews the current regulations for Title I N & D evaluation and concludes that present procedures do not result in accurate selection of students for programs or adequate evaluation of program effects. Part 2 proposes needs assessment and evaluation procedures that are integrated to provide continuous feedback on student and program achievement. Part 3 briefly discusses the cost of implementing Data Based Program Modification. (Author/JG)

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Title I Neglected and Delinquent Programs in Minneapolis: A Critique of the Present Evaluation Requirements and a Proposal for Future Evaluations

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Submitted to the Minneapolis Public Schools' Research and Evaluation Department in accordance with the terms of a contract agreement

by

Phyllis K. Mirkin
Independent Research Consultant

with a Preface and Interpretative Summary
by
Paul S. Higgins
Research Specialist
Research and Evaluation Department

EA 010 125

Ideas expressed in this report do not necessarily reflect the official position of the Minneapolis Public School Administration nor the Minneapolis School Board.

November 1976
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Research and Evaluation Department
Planning and Support Services Division
807 N. E. Broadway
Minneapolis, MN 55413

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Title I Neglected and Delinquent Programs in Minneapolis: A Critique of the Present Evaluation Requirements and a Proposal for Future Evaluations

SUMMARY

Under the Neglected and Delinquent provisions of Title I of the Elementary and Secondary Education Act, $49,410 was budgeted in 1975-76 to provide educational services to 139, primarily adolescent, Minneapolis students in five residential treatment institutions: Hennepin County Home School, St. Joseph's Home for Children, Lutheran Social Services Friendship House, Jonathan Group Home, and United Indians Group Home. The average per pupil cost of the five N & D programs was $355. See page iv

At the request of the Minneapolis Public Schools' Federal Programs Office and the Research and Evaluation Department, an independent research consultant was contracted to (a) describe the operation of Minneapolis N & D programs, (b) critique the current methods used to evaluate the effectiveness of these programs, and (c) suggest improved methods for future N & D evaluation. The consultant's services cost $3,500. See page iv

The present publication consists of two parts: (a) the consultant's report and (b) a preface and interpretative summary prepared by the Research and Evaluation Department. See page iv-v

1975-76 Operation of Minneapolis N & D Programs

With the exception of the Hennepin County Home School, all the N & D programs emphasized formal tutoring or classroom instruction for Title I students in reading, math, and/or composition. The County Home School's N & D program paid 40 students a daily monetary incentive to tutor adolescent mentally retarded students at a nearby rehabilitation center or to tutor other less able Title I students in Home School math classes. The Home School's N & D program, largest of the five, did, however, also employ a Title I math tutor. See page v-vi, 2-10, 16-25

Staffing. The County Home School N & D program employed 2 tutors; the St. Joseph's Home program, second largest among the N & D programs with 33 students, employed 1 tutor and 3 aides; the remaining 3 programs employed 1 tutor each. See page v-vi, 2-10, 16-25

Critique of Methods Currently Used to Evaluate N & D Program Effectiveness

The consultant concluded that:

1. Present needs assessment procedures do not accurately estimate the characteristics or numbers of students that will actually be served during the grant period. There are high month-to-month fluctuations in the size and identity of the student population at each N & D institution. Students taking part in the spring needs assessment for the grant application are frequently not the same students served the following fall. Also, needs assessments based on a single point in time do not accurately estimate the numbers of students who will be service-eligible during the entire grant year. See page vi-viii, 26-28

2. Reliance on standardized test scores is not a practical or useful approach to N & D evaluation. Any evaluation design requiring a single pretest and posttest is frustrated by the high frequency of unexpected releases and runaways among N & D students. Even if standardized pre-post testing were possible, grade-equivalent scores of adolescents are not easily translated into students' ability to cope practically with written or numerical information. The consultant believes that the primary, often unstated, goal of N & D program staff is to provide students with those minimum reading, math, and writing skills they will need for adult survival. See page viii-ix, 26-28

Improved Methods for Future N & D Evaluations

The consultant specifies a single model for both management and evaluation of N & D programs: "Data-Based Program Modification." Under this model it is essential to:

1. Identify a set of specific skills which meet society's expectations for minimum functional competency. These survival skills, specified in directly observable, measurable terms, would become the N & D program objectives, instead of the current objectives based on global teacher judgments or global grade-equivalent scores. See page ix-x, 31-48

2. Identify, for each student, those survival skills in which desired competence is lacking.

3. Develop teaching strategies for reducing the discrepancies between actual vs. expected student basic skills competence.

4. Graph the progress over time of each student (and each N & D student group) in mastering performance objectives. Frequent skill measurement means that evaluation data would be available for all students, even those who leave N & D programs prematurely.

Issues in Evaluation and Management for 1976-77 N & D Programs

The Research and Evaluation Department believes the following issues must be addressed by those responsible for Minneapolis N & D programs:

1. Should Data-Based Program Modification be implemented?

2. How can N & D needs assessments more accurately estimate the numbers of students who will be service-eligible during the grant period? See page x-xi, 49-58

3. How can qualified tutors be found for programs needing only part-time staffing?

4. What is the proper relationship between N & D school programs and the public or private schools students previously attended?

* * *

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REPORT BY PHYLLIS K. MIRKIN

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November 1976

Preface and Interpretative Summary for Phyllis K. Mirkin's Report, "Title I Neglected and Delinquent Programs in Minneapolis: A Critique of the Present Evaluation Requirements and a Proposal for Future Evaluations"

Paul S. Higgins
Minneapolis Public Schools
Research and Evaluation Department

Under the Neglected and Delinquent (N & D) provisions of Title I of the Elementary and Secondary Education Act, educational services were provided during 1975-76 to 139 Minneapolis students in five residential treatment institutions: Hennepin County Home School, St. Joseph's Home for Children, Lutheran Social Services Friendship House, Jonathan Group Home, and United Indians Group Home.

Of the total $49,410 budgeted for these five N & D programs, about half (51%) was allotted for staff salaries, 5% was allotted for educational supplies and materials, 7% was spent for evaluation, and 23% was earmarked for monetary incentives for students in the Hennepin County Home School program. The remaining 14% of the budget was allotted for payment of employee benefits, equipment, plant operation, in-service training, travel, indirect costs, etc. The average per pupil cost of the five Minneapolis N & D programs was $355. (For detailed budget information, see applications for N & D funding prepared by the Federal Programs Office, Minneapolis Public Schools, 1975, 1976, and cited in the References list following this Preface and Summary.)

At the request of the Minneapolis Public Schools' Federal Programs Office and the Research and Evaluation Department, an independent research consultant, Phyllis Mirkin, was contracted to (a) describe the operation of the five Minneapolis N & D programs, (b) critique the current methods used to evaluate the effectiveness of these programs in meeting the special needs of educationally deprived children in the five institutions, and (c) to suggest improved methods for future Minneapolis N & D evaluation.

The present paper is a preface to the 1976 report Mirkin submitted to the Research and Evaluation Department in partial fulfilment of her contract agreement with the Minneapolis Public Schools. The present paper is designed to summarize Mirkin's report, to clarify and spotlight her major recommendations, and to present some background information on Minneapolis N & D programs not contained in her report. For example, budget information not found in the Mirkin report has already been summarized in this preface. The following descriptions of N & D programs do rely on Mirkin's descriptions, but are

supplemented by information in a recent publication by the Minneapolis Public Schools' Special Education Division (1976), as well by the present author's own on-site observations.

1975-76 Operation of Minneapolis N & D Programs

The purpose of Title I N & D grants is the remediation of deficiencies in reading, composition, and math among students in public or private-nonprofit residental institutions. With the exception of the Hennepin County Home School, all Minneapolis N & D programs emphasized formal tutoring or classroom instruction for Title I students in reading, math, and/or composition.

The Hennepin County Home School, located in Glen Lake, is a residential treatment center for male and female juvenile delinquents, age 13-17, committed there by the Hennepin County Juvenile Court. The Home School's academic program, considered a school in the Minneapolis Public Schools' system, receives support from Hennepin County, Title I N & D funds, State special education funds, and local Minneapolis funds. During 1975-76 one teacher at the Home School, funded under Title I N & D, administered a program which paid 40 Title I students age 13-17 $4.00 per day either to tutor adolescent trainable mentally retarded students at a nearby rehabilitation center or to tutor other less able Title I students in Home School math classes. A Title I math tutor was also hired for the Home School with N & D funds.

St. Joseph's Home for Children is a private, nonprofit institution for the temporary shelter, day treatment, and residential treatment of boys and girls, age 5 to 17, who have serious behavior and learning problems, or who have difficulty adjusting to usual foster care placements. Referrals to St. Joseph's Home are usually made by the Hennepin County Welfare Department or the courts. The educational program at St. Joseph's is funded largely under the Special Schools Program of the Minneapolis Public Schools' Special Education Division. The N & D program at St. Joseph's employed one tutor and three aides to supplement regular instruction in reading, math, and composition for 33 Title I students in residential treatment, age 7-17. The Title I N & D tutor did, on occasion, teach social studies, science, and other elective subjects to Title I students, but the emphasis during this instruction was on reading improvement, rather than the content area of each elective.

Lutheran Social Services Friendship House offers residential treatment to adolescent girls, age 12-18, judged by the Welfare Department to have behavior and learning problems. A nearby church is the setting for Friendship House's academic program, a complete course of secondary-school study. The Special

Schools' Program of the Minneapolis Public Schools' Special Education Division, as well as Title I N & D funds, provide staffing and funding for the girls' schooling.

During 1975-76 a Title I N & D tutor taught two classes in remedial math and one class in remedial reading. For Friendship House's 14 Title I students, these remedial classes replaced other classes in the curriculum.

Jonathan Group Home serves boys age 13-18 with behavior, school, or family problems not requiring strictly supervised residential treatment. Referrals are made by the courts or the Welfare Department. All residents are supposed to attend regular programs in Minneapolis Public Schools. The Title I N & D tutor during 1975-76 provided math instruction to supplement the regular classroom instruction of 9 boys attending nearby secondary schools. The N & D tutor sought communication and cooperation with each boy's regular math teacher.

The remedial reading program specified in the N & D application was never implemented, because no qualified part-time reading tutor was available.

United Indians Group Home serves Native American girls, age 12-18, referred by the Juvenile Court for delinquency or school problems. The Title I N & D tutor provided remedial instruction in reading, math, and composition to 43 Title I students. Attempts to promote student attendance at nearby Minneapolis schools were largely unsuccessful. The N & D tutoring was often the student's only academic work during the year. The original N & D application envisioned that 10 students would be served. The Home's tutor paid from his own wages a second tutor to instruct the unexpectedly large number of students needing remedial help.

Critique of Methods Currently Used to Evaluate N & D Program Effectiveness

Mirkin concluded that:

1. Present needs assessment procedures do not accurately select students for N & D programs, nor do they provide accurate estimates of the number of students needing service during the project year, nor do they seem suited to measuring program effectiveness.

The needs assessment included in the N & D Title I application requires the same procedure as the needs assessment included in the applications for regular public-and nonpublic-school Title I funding; namely, teachers use State-approved rating forms to judge on a given date the numbers of students with severe deficiencies in reading and math. Scores on objective tests are not to be used in determining Title I eligibility, although tests can be

used as indices of Title I program effectiveness.

In her study of 1975-76 Minneapolis N & D programs, Mirkin found that:

a. N & D institutions have a high student turnover, fluctuations in total student population from month to month, and changes from year to year in the types of youth the institution seeks to serve. In preparing an N & D application, teachers must rate the deficiencies of their students in reading and math (as well as in work habits, and behavior and adjustment) in the spring preceding the school year for which funding is sought. These students on whom the needs assessment is based are frequently not the same students actually served the following fall. Furthermore, in each N & D program except the smallest (Jonathan Group Home), there were major discrepancies between the number of students served and the number judged eligible as of the previous spring's needs assessment. A total 139 students were actually served in the five programs during 1975-76, or 25% more than the 111 expected from the spring needs assessment.

b. Needs assessment procedures requiring teachers to judge each student's basic skills deficiencies (in years behind) relative to "normal" expectations for same-age peers "lack persuasiveness within the institutional framework" (Mirkin, p. 56). For in the N & D institutions, all students have been judged discrepant from their peers in behaviors that usually include poor academic performance. "The reference point of a 'normative' population is lacking" (p. 56). Furthermore, communication between N & D staff and staff in students' home schools is usually so poor, that home school teachers cannot be enlisted in estimating N & D student performance relative to home school peers.

c. Needs assessment procedures that do not fit N & D settings force many teachers to use test scores as the basis for needs assessment, a procedure that violates current state guidelines. State needs assessment guidelines, contained in the Appendix to Mirkin's report (p. 87),[1] suggest that teachers can "easily" determine each child's instructional level in reading and math "by comparing the level of materials used for instructional purposes [with that child] with the level of materials normally used with students of a given grade level and/or age grouping." Because of the small total materials budget (5% of the total grant during 1975-76), many of the reading and math materials used with N & D students were teacher-made. These teacher-made materials, and also many high-interest commercial materials designed for remedial basic skills instruction with adolescents, do not have an empirically determined grade level.

[1] Because they contain copyrighted material, these appendices are not reproduced here, but are available on loan from the Research and Evaluation Department.

To determine each student's instructional level in reading and math as a prerequisite to obtaining each student's needs assessment score, N & D teachers usually used grade equivalent scores from standardized tests.

d. Even if valid and reliable needs assessment scores were possible, the recommended Title I procedure of measuring fall to spring needs assessment gain scores as one index of program effectiveness is not applicable to N & D programs. Because of high turnover among students, who are either released or "on run" at various times throughout the year, the students enrolled in an N & D program in the spring are usually different from those enrolled in the fall.

2. Reliance on standardized test scores as an index of N & D program effectiveness, a standard procedure in regular Title I programs, is not a practical or useful approach to N & D program evaluation.

a. Again, reliance on any fall-to-spring gain score, whether based on test scores or teacher judgment, is frustrated by the high attrition in N & D programs. In fact any evaluation design relying on a single pretest and posttest can probably not be implemented. Even if the evaluator specifies that a posttest be given before student release from the institution, regardless of length of enrollment, many students are released (or abscond) from N & D institutions before the educational staff are notified.

b. Students in N & D programs have had multiple exposure to certain standardized tests--for example the Wide Range Achievement Test (WRAT; written by Jastak, Bijou, & Jastak, 1965)--used for diagnostic evaluations by personnel in court services and N & D institutions. During 1975-76 the WRAT was also used in three N & D institutions to measure reading and math achievement before and after Title I program participation. N & D teachers told Mirkin some students could recite parts of the WRAT from memory. The validity of scores made by students so familiar with a test is, of course, suspect. Unreliability and invalidity of WRAT scores for some N & D students is also suggested when, as Mirkin found, some students in one N & D program "achieved posttest grade equivalent scores...five years lower than pretest scores administered two weeks earlier" (p. 23).

c. Mirkin believes that the actual objectives of N & D programs for basic skills achievement among students cannot be well represented in terms of grade equivalent scores on standardized tests. Even when reliable standardized testing is possible, Mirkin believes that grade equivalent scores, particularly of adolescents, cannot be easily translated into the student's ability to cope in a practical way with written or numerical information. Many would, of course,

dispute Mirkin's assessment of the value of standardized tests.

Mirkin does offer an alternative to standardized testing which may be more appropriate for measuring student gains in N & D programs. Mirkin implies that the primary, if often unstated, goal of N & D program staff is to provide Title I students with those minimum reading, math, and writing skills they will need for competent adult functioning. Both Mirkin and the present author have found no enthusiasm among N & D staff for the objectives of improving grade-equivalent scores on standardized tests. According to Mirkin, the evaluators of N & D programs should provide a detailed assessment, preferably through direct observation, of student progress toward mastery of a number of distinct academic skills needed for adult survial. The planners of N & D programs therefore have the difficult task of explicitly identifying such minimum survival skills and of developing instructional strategies to enhance those skills.

In summarizing her position, Mirkin states, "whereas the primary goal of Title I programs in general is to increase student performance to a level commensurate with age grade mates, we propose that the primary goal of N & D programs should be to assist students in the development of competence in those skills which have been identified as important and in which they have been judged discrepant" (p. 31).

Improved Methods for Future N & D Evaluations

Mirkin specifies a single model for both N & D program management and program evaluation, which she calls "Data-Based Program Modification" (p. 31). Under this model it is essential to:

1. "Identify a set of skills which meet society's expectations for minimum functional competency" (p. 30). Such a set of skills could be identified during consultation among N & D program staff, students, and local and State educational officials. A single set of skills could be identifed for all N & D sites. Or, to the extent that N & D sites serve clienteles with substantially different basic skills problems, different sets of skills could be identified for different N & D programs. Such specific skills might be stated, for example, in terms of the desired number of words per minute read in a daily newspaper, in terms of the ability to make change or compute discounts, or in terms of the ability to write an employment application.

2. "Identify those skills in which the student does not achieve minimum expected competency" (p. 30). Given a clear statement of those basic reading, math, and writing skills needed for competent functioning in society, it is

possible to specify in directly observable, measurable terms what is meant by the discrepancy between the actual and desired performance of Title I students at each N & D site. Such specification of actual vs. desired performance would satisfy current federal N & D regulations requiring "objective measures of educational deficiency in reading, written communication, and mathematics" (Office of Education, 1975) during both needs assessment and annual program evaluation. These regulations do not require these objective measures to be scores on standardized tests.

3. "To establish progress and performance goals for achieving these competencies" (p. 30). Mirkin describes specific procedures for graphing (a) the rate of progress of a student on an ordered set of instructional objectives, or (b) the rate at which a student is mastering a single complex objective. Data from such "time series" graphs can be aggregated over students to show the total progress of all students in an N & D program during a specific time period. Since measures of progress toward mastery are taken frequently (at least monthly, suggests Mirkin), individual and program evaluation data would be available for each student, even those leaving the program prematurely. Furthermore, given frequent behavior measurement, the effects of various program changes can be assessed in terms of the effect such changes have on the learning rates of students.

In summary, Data-Based Program Modification is a system for both program management and program evaluation. Mirkin briefly outlines the method--including pre-service training, on-site consultation, and in-service meetings--by which such a system could be implemented for Minneapolis N & D programs.

Issues in Evaluation and Management for 1976-77 Minneapolis N & D Programs

The present author believes that those responsible for the planning, funding, and operation of Minneapolis N & D programs must address the following issues during 1976-77.

1. Should Data-Based Program Modification be implemented for N & D programs? At the very least, the possibility of substituting program objectives based on a set of distinct survival skills for program objectives based on global teacher judgments or grade-equivalent scores should be considered.

2. How can N & D needs assessments, prepared during the year prior to funding, be conducted so as to more accurately estimate the numbers of students who will actually be eligible for Title I services? Because of frequent changes in the populations at N & D sites, needs assessments should not be based on a

single point in time, but must represent average numbers of students eligible for service over an entire year (Mirkin, pp. 49-50).

3. How can qualified tutors be found for N & D programs needing only part-time staffing? As discussed earlier, one Minneapolis N & D program could not be fully implemented during 1975-76 because of the unavailability of a qualified part-time reading tutor. It may be easier to recruit full-time tutors, who can then serve more than one program.

4. What is the proper relationship between Title I programs in N & D institutions and educational programs in the home schools students previously attended? To what extent should N & D staff and public school staff maintain communication concerning the Title I students they have jointly served? Should N & D institutions stress development of self-contained Title I instructional programs; or should these institutions stress placement of Title I students in regular public school programs, with the N & D programs providing supplementary remedial work? During 1975-76, the Minneapolis N & D programs varied greatly in their emphasis on enrolling students in schools outside the institution.

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Title I Neglected and Delinquent Programs in Minneapolis: A Critique of the Present Evaluation Requirements and a Proposal for Future Evaluations

Phyllis K. Mirkin
Independent Research Consultant

November 1976

Submitted to the Minneapolis Public Schools' Research and Evaluation Department in accordance with the terms of a contract agreement

Title I N&D Programs in Minneapolis: A Critique of the Present Evaluation Requirements and A Proposal for Future Evaluation

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Abstract

The present report is divided into three parts. Part I is a review of current regulations for Title I N&D evaluation. It is concluded that while the N&D programs have complied to the best of their ability with the required regulations, the present procedures do not result in accurate selection of students for programs or adequate evaluation of program effects.

Major factors which are cited as contributing to this problem are:

1. Lack of a stable student population at N&D institutions;

2. Discrepancies between N&D program goals and required Title I performance objectives;

3. Inability of Title I staff to make adequate judgments regarding pupil performance relative to the normative population as required in Title I Needs Assessment;

4. Some evidence that standardized achievement tests may not be highly reliable for the population of students served at N&D sites;

5. Inadequate training and supervision of Title I N&D staff in evaluation procedures.

This section also includes a description of the sites and their Title I programs as well as a review of Federal and State Title I regulations.

In Part II of this report there is presented a proposal for Needs Assessment and Evaluation for Title I N&D programs in which the needs assessment and evaluation procedures are integrated to provide continuous feedback on student and program achievement. What is suggested is the adoption of a decision making model called Data Based Program Modification. This model has five phases each of which provides distinct information in the areas of student selection and

program selection, operation, adjustment and certification. It is proposed that with implementation of these procedures assessment and evaluation will become an integral component of program development and operation.

Specific procedures for implementing these procedures are included. It is proposed that needs assessment for purposes of the grant application be based on the average or percentage of students served in previous years. Performance objectives should be generated which represent minimum desired progress or performance for all students. Needs assessment for purposes of selection for the program should be based on discrepancies between student performance and minimum objectives.

Part III briefly discusses cost of implementation of Data Based Program Modification. It is proposed that costs must be evaluated in terms of payoff in student achievement which may be affected by implementation of these procedures.

Also included are three appendices. Appendix A contains the current (FY75-76) procedures for Title I grant application and needs assessment. Appendix B contains materials presently used for needs assessment at Hennepin County Home School. Appendix C contains two reviews of the test most widely used in N&D projects; the Wide Range Achievement Test (JASTAK, Rev. 1965). Since this test is no longer recommended for use by Title I regulations it is included only to further reinforce currently held views that the WRAT is not a totally adequate instrument for program evaluation. This appendix also contains a short bibliography of references on standardized achievement tests and continuous progress measurement for persons interested in pursuring these issues further.

Introduction

This report is submitted in fulfillment of the evaluation-consultant contract between Special School District #1 and Phyllis K. Mirkin to critique the current methods used to evaluate Minneapolis Title I Neglected and Delinquent (N&D) Projects and to suggest improved methods for future evaluation of the N&D Projects. The portion of the contract which relates to a pilot test of the methods proposed has not been implemented. A time line for the development of such a test is presented in Part III of this report. Should the services of the Evaluation-Consultant be required, a new agreement will have to be drawn up to reconcile the difference between the number of days allowed under this contract for the pilot test and the number of days needed.

Several oral progress reports on the evaluation-consultation have been presented to Mr. Paul Higgins of the Minneapolis Public Schools' Research and Evaluation Department during the period covered by the contract. Data collected by the consultant has also been made available to him when requested.

An oral presentation of the final written report by the evaluation consultant to the staffs of the N&D Projects and others with administrative responsibility or advisory relationship with these programs will be scheduled for a time and place mutually agreeable to all parties. Mr. Higgins will be consulted regarding these arrangements.

The efficacy of an evaluation design must ultimately be determined by the extent to which there is reasonable assurance that the questions of concern to the program developers have been reliably answered. In evaluating the appropriateness of the present N&D evaluation procedures a number of such questions have emerged as priority concerns:

1. Are the present procedures accurately selecting the students for whom the program is intended?
2. Are the measures used to evaluate performance appropriate to N&D program objectives?
3. Are the effects which have been observed on achievement tests reliable estimates of pupil achievement?
4. To what extent are achievement gains the result of the planned program and to what extent are they artifacts of the evaluation procedures themselves?
5. Are there other evaluation procedures which would more accurately select students and more reliably measure program effectiveness?

It is these questions to which we will attempt to respond in this evaluation report.

I. Review of Current Methods Used to Evaluate Title I N&D Projects

A. Description of institutions for neglected and delinquent children which received Title I grants, FY 1974-75 and/or FY 1975-76.

Five institutions for neglected and delinquent children in Special School District #1 received Title I grants for FY 1975-76. These are:

1. Hennepin County Home School
2. St. Joseph's Home for Children
3. Jonathan Group Home
4. Lutheran Social Service Friendship House
5. United Indians Group Home

Hennepin County Home School and St. Joseph's Home for Children also received Title I grants for FY 1974-75.

Institutions for neglected and delinquent children eligible for Title I grants are defined as follows:

> ...a public or private non-profit residential facility (other than a foster home) which is operated primarily for the care of, for at least 30 days, children who have been committed to the institution, or voluntarily placed in the institution, and for whom the institution has assumed or been granted custodial responsibility pursuant to applicable State law, because of the abandonment by, neglect by, or death of, parents or persons acting in the place of parents.
>
> Federal Register, 40, 205, pp. 49350, 1975.

The institutions cited above all meet these criteria. A general description of each site and Title I program follows.

1. Hennepin County Home School
P.O. Box 1028
Minnetonka, Minnesota 55343

A. General Description of Site

For students, 13 to 17 years old from Hennepin County, assigned by the juvenile court to a treatment program for an indefinite period of time. Maximum enrollment is 96 students. The Home School provides an individualized social and academic program that is designed to be a positive, useful, and successful experience for each student. The curriculum includes basic skills and specialized subjects such as industrial arts, home economics, business education, physical education, social studies and art.

Funding for this program comes from Hennepin County Special Education reimbursements and local Minneapolis funds for materials.

B. Description of Title I Program

The Title I program is described as a program which teaches Home School students to tutor and train younger students at nearby Cooperative School Rehabilitation Center as well as students in the community.

1. Students with highest scores on Title I Needs Assessment, i.e. most seriously below grade level, are the target population of the Title I tutoring program. Immediately upon entering the program students are trained as tutors by Title I teacher in two 45 minute sessions. Students are then assigned as tutors of adolescent trainable mentally retarded students at the Cooperative School Rehabilitation Center (CSRC) where needed skills are used and developed. Student tutors are evaluated by cooperating teachers as to ability to handle criticism, initiative, etc. Weekly conferences are held by Title I teacher with all tutors. Grades of satisfactory/unsatisfactory are assigned based on cooperating teacher evaluation and if relevant, direct observation by Title I teacher.

2. A second group of tutors with more advanced skills in reading and math, i.e. at least 6.0 grade equivalent scores are assigned as peer tutors for target students in their regular math class.

3. All tutors are paid $4.00 per day. Money is used as leverage to improve target student's attitude and motivation to attend school by providing work opportunity and status. Data on these objectives are not available.

4. Instruction in basic skills is primarily the responsibility of regular classroom teachers, all of whom are SLBP certified. At any one time only one or two students receive direct instruction in basic skills from the Title I teacher. These are identified as "potential" tutor target students.

2. St. Joseph's Home for Children
1220 East 47th Street
Minneapolis, Minnesota 55407

A. General Description of Site

For 44 students, 7 to 17 years old, who exhibit such serious learning and behavioral problems at home, in school, or in the community they need to live in a residential treatment center. These students are within the range of average intelligence.

Classrooms at St. Joseph's are limited to 8 students and approximate elementary, junior high and high school classes. The school day is from 9 a.m. to 2 p.m. Studies include individualized reading, math, and spelling instruction, but the entire class participates together in creative writing, social studies, music and sports. Students 12 to 16 years old and/or in grades 7 through 11 study in classes similar to their regular home school classes, in remedial classes, and sometimes in work experience programs based on their academic, behavioral, and vocational needs.

Job opportunities are available on and off the school grounds. Secondary students served full time at St. Joseph's are in education classes from one to three hours daily, depending on their needs.

Intensive family aid is an important goal of the school. Parents are expected to participate in bi-weekly family conferences at St. Joseph's, and the child spends most weekends and vacation time at home.

B. Description of Title I Program

Instruction in reading and math, which is supplementary to the regular class program, is provided within and outside class for target students. Service may be provided by Title I teacher and aides or by regular class teacher.

3. Jonathan Group Home
4537 3rd Ave. S.
Minneapolis, Minnesota 55455

A. General Description of Site

For boys 13-18 years of age assigned by court, social worker or probation officer for school or family related problems. Residents are selected who are not behavior problems; mentally retarded; emotionally disturbed or delinquent. Program goals are to provide opportunity to build relationships and receive support from adults and peer group. All residents attend regular school programs. with liaison provided by Jonathan Group Home staff.

B. Description of Title I Program

Direct remedial instruction in math is offered to individual students at the home at their request or request of home coordinator.

4. Lutheran Social Services
Friendship House
2427 Park Ave. S.
Minneapolis, Minnesota 55404

A. General Description of Site

This program provides a residence for a maximum of 24 junior and senior high girls, 12 to 18 years old, who stay 8 to 18 months. Most of the girls have had problems with delinquency; some stay at the House while waiting for placement in a foster or group home. The girls have social, emotional, and learning problems. (Girls are placed in the program through the Hennepin County Welfare Department.)

Classes are held in a building nearby provided by Lutheran Social Services. An individual and group study program is planned for each girl, which includes catch-up work in weak areas and tutoring in subjects in which she is especially interested. If it is appropriate, students are encouraged to follow the same course of studies begun in the regular school. Teachers of those entering the program in September for an extended period, emphasize language and communication skills, along with practical skills such as typing and business math. A small school newspaper is published twice monthly for the entire group home.
program offered and are entirely remedial. Individual plans are developed for each student.

5. United Indians Group Home
2525 Park Ave. S.
Minneapolis, Minnesota 55404

A. General Description of the Site

For Indian girls, 12 to 18 years old, assigned by courts for school related or other delinquency problems. Residents attend either Minneapolis Public School in area of home or alternative school programs. Where appropriate, residents may be referred to Work Opportunity Center or Division of Vocational Rehabilitation as full time students. The home social work staff maintains liaison with school programs.

B. Description of Title I Program

Remedial instruction is offered in reading, language, composition, math skills and Indian Culture. Program objectives for each student include:

1. Increased amount of free reading.
2. Improved self concept and esteem.
3. Increased school attendance.
4. Training in survival skills.

Program objectives are agreed upon through verbal contracts between tutor and student. Attendance is mandatory.

B. Federal Regulations for Title I N&D Programs

The Education Amendments of 1974 (PL 93-380) amended the Title I Elementary and Secondary Education Act specifically as it relates to regulations governing grants to institutions for neglected and delinquent children. These regulations are separate from the provisions for grants to other agencies and are now contained in part 116c of the Code of Federal Regulations.

The proposed rules specify that applicants for Title I N&D Projects include the following information in their program descriptions.

116c.12 Program descriptions.

Each application by a State agency under this part shall set forth a program for instruction designed to meet the special educational needs of children in institutions for neglected or delinquent children or in adult correctional institutions. The application shall contain:

(a) An identification of each institution in which children to be provided with services under this part reside, the number of such children, and the approximate ages of the youngest and oldest such children in each such institution;

(b) A statement of functions of each institution so identified, a description of the educational program being carried out for children in such institutions with State funds and other Federal funds, and the average length of stay of the children in each such institution;

(c) The results of a needs assessment of the children receiving free public education in each such institution. This needs assessment shall be based on the best available data concerning the needs of the children particularly as indicated by objective measures of educational deficiency in reading, written communication, and mathematics. The application shall contain a statement of the priority of those needs as determined by the State agency;

(d) A statement of the objectives of the proposed program, the related performance criteria, and the procedures and instruments by which the effectiveness of the program will be evaluated in accordance with §116.33 of Part 116;

(e) A description of each service to be provided as a means of accomplishing the stated objectives of the program, the estimated number of children to be served by age and anticipated grade placement, a description of any inservice training (including the type of training, frequency, and number and type of staff members who will participate in that training), and, for each institution, the type and number of staff to be employed;

(f) A budget based on categories of expenditure prescribed by the State educational agency with appropriate detail by service and by institution;

(g) A description of the use that will be made of any school facilities constructed or to be constructed with funds under this part including the use that will be made of these facilities in providing the services set forth in the application;

(h) A list by type and location of equipment purchased or to be purchased with funds under this part and a designation by type of the equipment to be used in providing the proposed services as described in the application.

from Proposed Rules Department of Health, Education and Welfare, Office of Education (45 CFR Part 116c) Grants to State Agencies for Programs to Meet the Special Educational Needs of Children In Institutions for Neglected or Delinquent Children, Federal Register, Vol. 40, #205- pp. 49351, Col. 1 & 2, Wed., Oct. 22, 1975.

These proposed rules are substantially the same as those required of all agencies applying for Title I funds. The only difference appears to be the elimination of the requirements that parents be consulted regarding programs.

The proposed rules also specify that evaluation requirements for N&D projects are to be evaluated in accordance with §116.33 of Part 116c which governs all Title I evaluations. These regulations are as follows:

§116.33 Measurement of educational achievement and evaluation of programs.

(a) Annual evaluation procedures. Each application for a grant under Title I of the Act by a State agency of local educational agency (or by the Department of the Interior) shall describe the procedures and techniques to be utilized in making at least annually an evaluation of the effectiveness of the program in meeting the special educational needs of educationally deprived children, including appropriate performance criteria and the instruments and methods to be used to measure objectively changes in the educational achievement of the children who will participate in the program.

(b) Standards. The measurement of educational achievement of participating children shall be carried out with regard to objective standards or norms. The type of measurement used by a State or local educational agency shall give particular regard to the requirement under §116.7 of Subpart B that the State educational agency report to the Commissioner

on the effectiveness of the programs in that State in improving the educational achievement of educationally deprived children.

(c) Children in private schools. The evaluation of programs and projects shall, consistent with the nature and extent of participation of children enrolled in private schools, be extended to such participation.

from Federal Register Vol. 40 #48 - pp. 11476, Col. 3, Tues. Mar. 11, 1975. Proposed rules Department of Health, Education & Welfare, Office of Education (45 CFR Parts 116, 116a) Financial Assistance to Local Education Agencies and State Agencies to Meet the Special Educational Needs of Educationally Deprived Children.

C. State Regulations for Title I N&D Projects

In an effort to comply with Federal Regulations, in the State of Minnesota all Title I grant applicants are required to complete Uniform District (or institution) identification procedures.[1] These procedures include a needs assessment of the entire district (or institution) and specification of performance objectives for each student identified by the needs assessment as eligible for Title I services. The procedures are as follows:

1. Each grant applicant must conduct a needs assessment which includes all children in the school (or institution) applying for funds and which assesses each student in four areas:

   a. Reading
   b. Math
   c. Work Habits
   d. Behavior and Adjustment

Assessment as to the severity of a student's problem is based on classroom teacher judgment. Reading and math scores are weighted and are 3x greater than behavior and adjustment and work habit scores for similar levels of severity. Composite scores are calculated for each student. Scores ranging from 0 to 100 are possible. A cut off score of 35 is used to determine eligibility for Title I service. A set of these forms is shown in Appendix A of this report.

2. Each grant applicant must include performance objectives for each child identified in the needs assessment. These objectives are of two types:

   a. Objectives which relate to change in level on the needs assessment (i.e. from serious to poor in reading, math, work habits, behavior and adjustment based on teacher judgment.)

[1] A complete form for these procedures is shown in Appendix A of this report.

b. Objectives which relate to gains on Standardized Achievement Tests (but which are not required in initial needs assessment identification procedures).

The most recent Title I, ESEA Regulations and Guidelines regarding evaluation, issued by the Minnesota Department of Education for the 1974-75 school year, suggest that the following information be the minimum included in annual Title I evaluation reports:

1. Objectives

   a. Must be written as they were in the application.
   b. All objectives specified must be included.

2. Number of Participants

   a. By grade and by school (if applicable).
   b. By Needs Assessment scores indicated in five point intervals; 35-40, 41-45, 46-50, etc.
   c. Average daily attendance in project by grade.

3. Personnel

   a. Number of staff employed including administrators and aides.
   b. Proportion of time of each given to Title I.
   c. Special competence, if any, to work with disadvantaged children.
   d. Grades served, schools served.

4. Procedures

   a. Subjects taught.
   b. Where, (regular classroom, special school, special room).
   c. Number of hours (minutes) daily; days per year.
   d. Text(s) used - workbooks - special supplies (give author, publisher, and date). Publications where appropriate.
   e. General thrusts of program, individualized instruction, small groups, etc.
   f. Text(s) used in subjects in the regular class activity.
   g. Equipment.

5. Measuring Devices

   a. Name form of test used (must be test specified in the objectives).

b. Dates of testing, both pretest and posttest.
c. Teachers judgment (used for primary aged children). Evidence of the rationale for these judgments must be submitted.

6. Conclusion-Recommendations

a. Did project reach objectives set for children by grades-schools?
b. In the event of success or failure what courses of action are contemplated for continuing or changing the project?

7. Budget

a. How much was spent by aspect (reading, math, language arts)?
   1. Administration
   2. Instruction
      a. Professional salaries (including all fringe benefits).
      b. Non-professional salaries (including all fringe benefits).
   3. Supplies - texts.
   4. Equipment.

8. Parent Involvement

a. Dates of meeting.
b. The nubmer attending each.
   1. Indicate number of parents of participating children.
   2. Indicate number of parents of eligible non-participating children.
   3. Indicate number of other parents.
   4. Indicate number of staff.
c. Length of meetings (in minutes).
d. Purpose of each meeting.
e. Amount of Title I funds spent on meetings.
f. Results. What, if any impact did the Advisory Committee have on: the project, the school program, the community?

from Title I, ESEA Regulations and Guidelines Minnesota Department of Education, 1974-75.

It is also suggested in these guidelines that some attempt should be made to relate the data to the needs assessment scores so that it is possible to discuss gains made by the most severely deprived as well as those less seriously deprived.

Further instructions regarding year end reports are included in an April 30 memo from the Assistant Administrator for Title I Evaluation for the State of Minnesota.

This memo advised LEA representatives as follows:

> For reporting reading scores, use only one of the nationally standardized tests that was included in the Anchor Test Study. These were:
>
> California Achievement Test (CAT)
> Comprehensive Test of Basic Skills (CTBS)
> Gates-McGinitie Reading
> Iowa Test of Basic Skills (ITBS)
> Metropolitan Achievement Test (MAT)
> Science Research Associate Achievement Test (SRA)
> Sequential Test of Education Progress (STEP)
> Stanford Achievement Test (SAT)[3]
>
> For reporting mathematics achievement the districts are permitted to use any nationally named standardized test.

It should be noted that the WRAT (JASTAK, Rev. 1965) is not included among the tests which may be administered in reading. For mathematics it appears that, if chosen, the WRAT mathematics section would still be acceptable.

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[3]To the best of my knowledge these are all group administered achievement tests.

D. Compliance with State Regulations by FY 1974-75, 75-76 Minneapolis Title I N&D Projects

Each of the five N&D Title I Projects will be reviewed here with regard to compliance with the regulations cited in IB and IC above. The review is based on information contained in the Title I grant application for each program; responses to questions asked of each program director and/or Title I teacher by the consultant during an on-site visit and those evaluation reports which had been submitted by the institutions for FY 1975-76 and/or 1974-75 at the time of this report.

The following information will be included for each program:

a. How needs assessment was conducted for the grant application.
   How students are selected who actually participate in the program.

b. Summary of student and staff information listed on grant application and student, staff data for FY 75-76 and/or FY 1974-75 reported in year end reports.

c. Summary of performance objectives listed on grant application and objectives actually achieved during the year.

d. Opinions of Title I personnel regarding the relationship between program goals and needs assessment and evaluation requirements (where available).

e. Summary.

1. HENNEPIN COUNTY HOME SCHOOL (HCHS)

a. Needs Assessment - State Title I Needs Assessment (see Appendix A) is used to identify students for grant application. The same procedures are also used to assess students as they enter the school. Within three weeks of admission teachers are required to assign scores to students in basic skill areas of reading and math; work habits, behavior and adjustment (see Appendix B). Scores are based on tests administered in class such as Spache, SRA and Gate McKillop, etc. and teacher judgment of classroom performance. Students who receive total scores of 41 or above are accepted for Title I tutoring program.

b. Student/Staff Data	Grant Application FY 75-76	Year End Report FY 75-76	Grant Application FY 74-75	Year End Report FY 74-75
1. Students Identified in Needs Assessment	Dup. = 121 Undup. = 70		Dup. = 122 Undup. = 67	
2. Total # of Students Served In Program		Dup. svces. for stud. pre-post tested = 43 Undup. = 40	Dup. svces. for stu stud. pre-post = 52 Undup. = 47	
3. Average Daily Attendance		19	19	
4. Average Length of Stay: In Home:		3.5 months	6.7 months	
In Program:		2/3 of commitment time	3.8 months	
5. # of Title I Staff	1 full time teach. 1 ½time aide at $5/hr	same	same	same
6. Direct Instruction/ Pupil/Week		Approx. 14 hrs. per first 20 days, 15% time thereafter	No data	
7. # Students Pre-Post Tested		22 or 55% on WRAT (JASTAK, Rev. 65)	26 or 55% on WRAT (JASTAK, Rev. 65)	
8. # Students Still in Program at End of FY		7		3
c. Summary of Objectives				
1. Reading				
a. One level gain in Title I Needs Assessment	51/51	12/19 (63%)-serious 2/3 (66 2/3%)-poor	56/56	11/26
b. WRAT score gains				
1. More than 3 mos./mo. In program	0	0	0	2
2. At least 3 mos./mo. In program	12	8/22	14	0
3. Between 2 & 3 mos./ mo. In program	14	2/22	28	3
4. Between 1 & 2 mos./ mo. In program	15	8/22	7	0
5. At least 1 mo./mo. In program	10	1/22	7	8
6. Less than 1 mo./mo. In program	0	3/22	-	7
7. No change	-	-	-	4
8. Loss of less than 1 mo./mo. In program	-	-	-	-

2. Math	Grant Application FY 75-76	Year End Report FY 75-76	Grant Application FY 74-75	Year End Report FY 74-75
a. One level gain in Title I Needs Assessment	70/70	16/18 (88%)-serious 2/3 (66 2/3%)- poor	66/66	18/26
b. WRAT score gains				
1. More than 3 mos./mo. in program	7	0	0	6
2. At least 3 mos./mo. in program	14	14/22	17	0
3. Between 2 & 3 mos./ mo. in program	28	2/22	33	7
4. Between 1 & 2 mos./ mo. in program	21	2/22	16	6
5. At least 1 mo./mo. in program	0	0	0	0
6. Less than 1 mo./mo. in program	0	4/22	0	4
7. No change	-	-	-	2
8. Loss of less than 1 mo./mo. in program	-	-	-	1
3. One level gain in Work Habits	19/19	7/11 (63%)-poor	51/51 reading 52/52 math	data not access-able from report
4. One level gain in Behavior and Adjust-ment	14/14	2/2 (100%)-poor	39/39 reading 39/39 math	data not access-able from report

d. Comments by Title I Staff - 1. It is difficult to complete the year end report as the grant application objectives are not written for the same population of students actually served. 2. It is difficult to separate classroom effects from Title I program effects, particularly in reading. 3. Would like to have evaluation procedures which measure performance more frequently.

e. Comments by Consultant - 1. There is a large discrepancy between the number of students identified and the number of students served during both FY 1974-75 and FY 1975-76. Sixty percent fewer students were served than estimated. 2. The gains reported in reading (for both years) are not clearly attributable to the Title I program. The program does not provide direct instruction in reading to most of the students, whereas the regular class program offers developmental and remedial reading. A comparison group is needed if the evaluation data is to be meaningful. 3. The skilled math tutor program served more target (35) than non-target students in FY 74-75. Thirty-two non-target students participated during FY 75-76. The data for this group is included but not summarized for 74-75. The data for this group is not included or summarized for 75-76. 4. Only 55% of the students served were posttested in either FY 74-75 or 75-76. 5. The objectives of the peer tutoring program are not clearly specified or measured.

In conclusion, while the year end reports submitted by Title I staff are in essential compliance with Title I requirements clarification is needed to determine whether the program complies with the legislative content for use of Title I funds.

2. ST. JOSEPH'S HOME

a. Needs Assessment - State Title I Needs Assessment is used to identify students for grant application. Students who score 2 years below grade level in reading and math on the WRAT (JASTAK, Rev. 1965) are judged to have serious problems and are assigned scores of 35. Students who are actually served in the Title I program during the year are selected by classroom teachers. The decision is based on a composite of teacher judgment and scores on diagnostic tests such as Key Math and GORT, administered in class.

b. Student/Staff Data	Grant Application FY 75-76	Year End * Report FY 75-76	Grant Application FY 74-75	Year End Report FY 74-75
1. Students Identified in Needs Assessment	Undup. = 18 Dup. = 31		Undup. = 16 Dup. = 27	
2. Total # of Students Served in Program		Undup. = 30 (33) (oral communication)		Undup. = 44 Dup. = (no data)
3. Average Daily Attendance		no data		Dup. = 27
4. Average Length of Stay: In Home:				7.5 months
4. Average Length of Stay: In Program:				7.5 months
5. # of Title I Staff		1 30 hr./week tutor 1 10 hrs./week aide	1 25 hr./week tutor 4 aides/total 60 hrs./week	
6. Direct Instruction/ Pupil/Week		No data		Max. 2 hrs./day/ pupil
7. # Students Pre-Post Tested		No data (10)		27/44 (60%) on WRAT
8. # Students Still in Program at End of FY		No data (19)		No data
c. Summary of Objectives				
1. Reading				
a. One level gain in Title I Needs Assessment	13/13	No data (7/31)	13/13	No data
b. WRAT score gains				
1. More than 3 mos./mo. in program	1	(1)	1	1
2. At least 3 mos./mo. in program	2		2	0
3. Between 2 & 3 mos./ mo. in program	3	(1)	3	3
4. Between 1 & 2 mos./ mo. in program	5	(1)	5	5
5. At least 1 mo./mo. in program	2	(1)	2	3
6. Less than 1 mo./mo. in program	-	(2)	0	6
7. No change	-	(1)	0	0
8. Loss of less than 1 mo./mo. in program	-	(2)	0	0

2. Math	Grant Application FY 75-76	Year End Report FY 75-76*	Grant Application FY 74-75	Year End Report FY 74-75
a. One level gain in Title I Needs Assessment	18/18	No data (9/31)	14/14	No data
b. WRAT score gains				
1. More than 3 mos./mo. in program	1		1	1
2. At least 3 mos./mo. in program	3		2	0
3. Between 2 & 3 mos./ mo. in program	4		3	5
4. Between 1 & 2 mos./ mo. in program	6	(4)	5	5
5. At least 1 mo./mo. in program	4		3	3
6. Less than 1 mo./mo. in program	-	(2)	0	6
7. No change	-	(1)	0	0
8. Loss of less than 1 mo./mo. in program	-		0	0
3. One level gain in Work Habits	13/13 reading 10/10 math	(10/31)		No data
4. One level gain in Behavior and Adjustment	12/12 reading 12/12 math	(12/31)		No data

d. Comments by Title I Staff - Title I Needs Assessment has little to do with actual Title I program. WRAT is used because it is quick and easy. Staff also believe it to be fairly reliable test for their purpose; initial identification of students who may need help. It has also been difficult to get staff at St. Joseph's to complete evaluation reports as they do not feel it is their responsibility.

e. Comments by Consultant - 1. There is a large discrepancy between the number of students identified and the number of students served during both FY 1974-75 and FY 75-76. 2. Title I Needs Assessment is based on WRAT scores rather than teacher judgment or informal tests. 3. More students appear to be served than meet Title I criteria for supplementary assistance. 4. While needs assessment identifies students in grades 5-10, the project is serving students in grades 2-10. 5. There are discrepancies between objectives listed for year end report for 1974-75 and grant application for FY 1974-75. 6. Only 60% of students were posttested for FY 74-75. 7. Pre-post test data for 75-76 has not been submitted.

In conclusion, for FY 1974-75, it appears that the needs assessment and objectives listed in the grant and year end report have developed primarily to satisfy State requirements. It is difficult to determine whether the regular class program or the Title I program is evaluated in the year end report, as there is no differentiation of students receiving supplementary assistance from others in school. The method for assessing needs and determining who is eligible for Title I assistance appears to be based primarily on WRAT scores rather than teacher judgment of classroom performance.

*Numbers in parentheses are data reported to the Minneapolis Public School's Research and Evaluation Department in June 1976.

3. JONATHAN GROUP HOME

a. Needs Assessment - State Needs Assessment was used to complete Title I grant application. It is not entirely clear who completed the application or what procedures or instruments were used. Selection for participation in the program is requested by the student or the group home coordinator.

b. Student/Staff Data	Grant Application FY 75-76	Year End Report FY 75-76	Grant Application FY 74-75	Year End Report FY 74-75
1. Students Identified in Needs Assessment	Undup. = 6 Dup. = 9			
2. Total # of Students Served in Program		9 (math only)		
3. Average Daily Attendance		3/week		
4. Average Length of Stay: In Home:		No data		
In Program:		18-20 hrs.		
5. # of Title I Staff		1 4hr./week tutor @ $4/hr.		
6. Direct Instruction/ Pupil/Week		1 hr.		
7. # Students Pre-Post Tested		No data		
8. # Students Still in Program at End of FY		none		
c. Summary of Objectives				
1. Reading				
a. One level gain in Title I Needs Assessment	3/3	No data		
b. WRAT score gains				
1. More than 3 mos./mo. in program	0			
2. At least 3 mos./mo. in program	0			
3. Between 2 & 3 mos./ mo. in program	0			
4. Between 1 & 2 mos./ mo. in program	3			
5. At least 1 mo./mo. in program	0			
6. Less than 1 mo./mo. in program				
7. No change				
8. Loss of less than 1 mo./mo. in program				

	Grant Application FY 75-76	Year End Report FY 75-76	Grant Application FY 74-75	Year End Report FY 74-75
2. Math				
a. One level gain in Title I Needs Assessment	6/6	No data		
b. WRAT score gains				
1. More than 3 mos./mo. in program	0			
2. At least 3 mos./mo. in program	0			
3. Between 2 & 3 mos./mo. in program	0			
4. Between 1 & 2 mos./mo. in program	3			
5. At least 1 mo./mo. in program	3			
6. Less than 1 mo./mo. in program				
7. No change				
8. Loss of less than 1 mo./mo. in program				
3. One level gain in Work Habits	6/6			
4. One level gain in Behavior and Adjustment	4/4			

d. Comments by Title I Staff - It is difficult to collect the type of data requested for the Title I needs assessment and evaluation. Contact between home and schools students attend is excellent. Communication with the regular class teacher regarding individual students, however is usually confined to a letter or telephone call to inform the teacher that the student is receiving additional help in the subject area.

e. Comments by Consultant - Compliance can not be evaluated as evaluation summary has not been completed by staff. The program at Jonathan Group Home did not begin as planned due to difficulties in obtaining services of a tutor for either eading or math. A math tutor was hired in January; however, a reading tutor was never employed. This has seriously impaired the extent to which the program has been implemented. The math tutor identifies five goals which he believes are an important part of the program. These goals are as follows: 1. Instruct students in basic math skills. 2. Provide support to the student in the regular school program. 3. Encourage student attendance in the regular school program. 4. Encourage participation in the regular school program. 5. Help the student clarify his own personal educational goals.

At the present time there is no provision for assessment or evaluation of such objectives (except the first) in the Title I scheme.

4. LUTHERAN SOCIAL SERVICE FRIENDSHIP HOUSE

a. Needs Assessment - State needs assessment was used to complete Title I grant application. Students are selected for participation in the program on the basis of WRAT (JASTAK, Rev. 1965) scores, with preference given to those students who show the greatest discrepancy between WRAT score and grade placement based on chronological age. Previous SLBP experience is considered if this information is available.

b. Student/Staff Data	Grant Application FY 75-76	Year End Report FY 75-76	Grant Application FY 74-75	Year End Report FY 74-75
1. Students Identified in Needs Assessment	Undup. = 12(21xx) Dup. = 24			
2. Total # of Students Served in Program		Undup. = 14 Dup. = (no data)		
3. Average Daily Attendance		7/week		
4. Average Length of Stay: In Home:		4.5 months		
In Program:		4.3 months		
5. # of Title I Staff		1 15/week tutor @ $8.25/hr.		
6. Direct Instruction/ Pupil/Week		Approx. 5 hr. for each subject area		
7. # Students Pre-Post Tested		6 reading 7 spelling/math		
8. # Students Still in Program at End of FY		7		
c. Summary of Objectives				
1. Reading				
a. One level gain in Title I Needs Assessment	7/12	No data		
b. WRAT score gains *				
1. More than 3 mos./mo. In program	0	0		
2. At least 3 mos./mo. In program	2	0		
3. Between 2 & 3 mos./ mo. In program	1	0		
4. Between 1 & 2 mos./ mo. In program	2	0		
5. At least 1 mo./mo. In program	7	0		
6. Less than 1 mo./mo. In program	0	2		
7. No change	0	1		
8. Loss of less than 1 mo./mo. In program	0	1		
9. Loss of more than 1 mo./mo. In program	-	2		

*Test-retest scores appear unreliable.

	Grant Application FY 75-76	Year End Report FY 75-76	Grant Application FY 74-75	Year End Report FY 74-75
2. Math				
a. One level gain in Title I Needs Assessment	7/12			
b. WRAT score gains				
1. More than 3 mos./mo. in program	0	1		
2. At least 3 mos./mo. in program	2	-		
3. Between 2 & 3 mos./mo. in program	1	1		
4. Between 1 & 2 mos./mo. in program	2	1		
5. At least 1 mo./mo. in program	7	0		
6. Less than 1 mo./mo. in program	0	1		
7. No change	0	-		
8. Loss of less than 1 mo./mo. in program	0	1		
9. Loss of more than 1 mo./mo. in program	0	2		
3. One level gain in Work Habits	6/12	No data		
4. One level gain in Behavior and Adjustment	5/12	No data		

d. Comments by Title I Staff - More variety in formal (standardized) tests than now available to include reading comprehension and more detailed analysis of basic math difficulties. Objectives should be written for individual students based on teacher judgment, observation and informal tests.

e. Comments by Consultant - 1. Procedures used to select students for service do not follow State Title I requirements. Selection is based on WRAT scores only. 2. Test data used in evaluation report appears unreliable. In some instances students achieved posttest grade equivalent scores which were 5 years lower than pretest scores administered 2 weeks earlier. 3. Approximately 50% of student were not posttested. 4. The LFS program does not maintain any liaison with the regular school program in the community. This severely limits the opportunities available to students.

5. UNITED INDIANS GROUP HOME

a. Needs Assessment - State needs assessment was used to complete Title I grant application. There are no selection procedures or requirements for admission to the program.

b. Student/Staff Data	Grant Application FY 75-76	Year End Report FY 75-76	Grant Application FY 74-75	Year End Report FY 74-75
1. Students Identified in Needs Assessment	Undup. = 10 Dup. = 20			
2. Total # of Students Served In Program		Undup. = 43 Dup. = (no data)		
3. Average Daily Attendance		16/week		
4. Average Length of Stay: In Home:		4.4 days		
In Program:		4.4 days		
5. # of Title I Staff		1 8 hr./week tutor @ $8.25/hr.		
6. Direct Instruction/ Pupil/Week		45 minutes		
7. # Students Pre-Post Tested		0		
8. # Students Still in Program at End of FY		16		

c. Summary of Objectives				
1. Reading				
a. One level gain in Title I Needs Assessment	10/10	No data		
b. WRAT score gains				
1. More than 3 mos./mo. In program	1			
2. At least 3 mos./mo. In program	0			
3. Between 2 & 3 mos./ mo. In program	3			
4. Between 1 & 2 mos./ mo. In program	4			
5. At least 1 mo./mo. In program	2			
6. Less than 1 mo./mo. In program	-			
7. No change	-			
8. Loss of less than 1 mo./mo. In program	-			

	Grant Application FY 75-76	Year End Report FY 75-76		Grant Application FY 74-75	Year End Report FY 74-75
2. Math					
a. One level gain in Title I Needs Assessment	10/10	No data			
b. WRAT score gains					
1. More than 3 mos./mo. in program	0				
2. At least 3 mos./mo. in program	1				
3. Between 2 & 3 mos./mo. in program	0				
4. Between 1 & 2 mos./mo. in program	6				
5. At least 1 mo./mo. in program	3				
6. Less than 1 mo./mo. in program	0				
7. No change	0				
8. Loss of less than 1 mo./mo. in program	0				
3. One level gain in Work Habits	8/10				
4. One level gain in Behavior and Adjustment	4/10				

d. Comments by Title I Staff - The staff at United Indian Group Home expressed grave concerns to the consultant regarding the regular public school programs which most of the residents are expected to attend. There has been difficulty establishing or maintaining liaison with the public schools, particularly Phillips Junior High School where many of the girls are presently enrolled. The general impression conveyed is one of inappropriate school placement and inadequate supplementary supportive service. This has created additional problems of poor or non-attendance at school by the girls in residence. The staff contends that for many students Title I tutoring is not supplementary to the regular school program but is in effect their only instruction. Since most of the students achieve below 3rd grade level* in basic skills, the staff believes the present program of instruction to be totally inadequate. They would prefer to be designated as a Special Schools Program and provide all instruction at the Group Home.

*This information is based on tutor estimates and not achievement test scores. The tutor feels tests do not adequately reflect program effectiveness or student achievement.

e. Comments by Consultant - 1. The number of students served FY 1975-76 is considerably greater (2x approximately) than the number identified in Title I Needs Assessment for grant application. 2. Those students served FY 1975-76 are not the same as those identified in the grant application. 3. Supplementary instruction is being provided totally outside the regular school program. There is no communication between the tutor and the regular school. 4. Procedures used to select students for participation in program do not comply with State Title I requirements. 5. The data requested for State Title I evaluation regarding teacher judgment of performance is not available in this setting as instruction occurs totally outside the regular school program. Standardized tests are also not administered (or if they are the staff is reluctant to release this data).

E. Conclusions

The present procedures governing needs assessment and program evaluation for Title I programs for the State of Minnesota appear to provide inaccurate assessments of needs and inadequate evaluations of the Title I N&D projects presently being funded. The major factors contributing to the problems encountered by Title I N&D projects are those which are inherent to these agencies and which may not be shared by other agencies receiving Title I funds. These are:

1. A high rate of turnover in the student population. The average stay of students across institutions is approximately 4.5 months. Estimates of need based on data collected in June do not accurately identify the students to be served at a subsequent time period. The population of students used in the needs assessment is different at any point in time, as there is a continuous turnover of students served during the school year.

2. Performance objectives listed in the grant applications are written for students selected in the needs assessment. As a result of the high rate of turnover the objectives which are written in the needs assessment do not accurately reflect the objectives for students who will be served in the program.

3. There is a lack of communication in some projects between regular school programs which students attend and the supplementary Title I program. The context for needs assessment, as presently organized, is the regular classroom. In most cases this information on student performance is unavailable for these students.

4. Students in the projects have become test wise. Many of the students have had multiple exposures to the WRAT (JASTAK, Rev. 1965), the achievement test used at all N&D sites for evaluation purposes. Staff report that in many instances students can "say" the first two lines of the test without reading.

Many refuse to take tests with which they have previously experienced failure. Examination of test data reveals some instances of exceedingly low test-retest reliability.[4]

5. Students are frequently released from the institution by the court without prior notification to staff. There is also a fairly high rate of student runaways. These factors mitigate against collection of post test data for evaluation. Approximately 40-50% of the student served thus far in N&D projects have not been posttested.

6. Most of the projects serve students with school related problems such as poor attendance, truancy and lack of motivation. The present procedures do not accurately evaluate the program's success in changing these behaviors. These goals can only be evaluated by looking at past as compared to present rates of progress. The present procedures summarize only data related to months of progress/month.

7. Insufficient time is available to N&D projects for supervision by LEA (Minneapolis) personnel and inservice training. Needs assessment and evaluation requirements are not adequately understood or practiced. Needs assessment and evaluation are viewed as "a necessary evil" if projects are to be funded, rather than decision making tools leading to more effective programs for children.

Program evaluation, to be useful as a decision making tool must provide feedback on the extent to which the program has succeeded in reaching agreed upon goals. Program changes should reflect these findings.

If this information is to be available:

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[4]For example, Lutheran Friendship School test data in reading shows a grade level loss of almost five years for tests administered within less than one month of each other.

1. The needs assessment must accurately select students for the program as well as programs for the students;

2. Training must be provided to insure relevant and consistent data collection, across, as well as within, projects;

3. Training must be provided in data interpretation.

Due to the nature of the population and the programs as presently organized by Title I N&D projects needs assessment and evaluation do not achieve these criteria. Evaluation of programs is separated from program operation. This leads to duplication of effort and a less effective and integrated effort in behalf of students.

II. Needs Assessment and Evaluation: Recommendations

Part II is divided into three sections. These are:

A. A Proposal for Needs Assessment and Evaluation for N&D Title I Programs.

B. Specific Procedures for Implementation of the Proposal.

C. Recommendations for Fulfilling Grant Application Requirements for N&D Programs.

A. A Proposal for Needs Assessment and Evaluation for N&D Title I Programs.

Purpose and Goals

The first step in the development of a Title I proposal is the completion of a needs assessment. The purpose and context of this needs assessment must be established before a decision can be made regarding the procedures and content of this assessment.

The context for needs assessment for most Title I programs is the regular classroom. The purpose of the assessment is to locate and select students whose performance in basic skills is substantially below that of their age mates in the regular class program. The regular classroom teacher is asked to make judgments about the status of student performance as measured against classroom standards. Teachers are encouraged to specify and reach mutual agreement concerning the age grade expectations for growth in basic skill development demanded by those curriculums currently in use. (Murray, note 1).

Once students are identified whose performance is considerably below these expectations, programs are developed to increase pupil performance to a level commensurate with their age grade mates. The purpose of evaluation is to determine the extent to which the program has been successful in achieving these objectives.

What must be determined is the appropriateness of these goals for the N&D programs. Careful review of each institution's perceived goals and objectives for students suggests that this question cannot be answered affirmatively. It is evident that each of the five institutions serve children who have already been identified as discrepant in behavior or circumstance from the modal population.[5] The discrepancy has been perceived by society to be of sufficient magnitude to warrant removal of the child from his/her 'natural' environment to a setting in which s/he will remain until such time as the discrepancy is perceived to be removed or reduced to proportions which society perceives as non-threatening to itself and/or the child. The mere presence of these students in the institution confirms that they have not met expectations.

It is our view that the purpose of needs assessment in this instance is to determine those behaviors which have led to the child being identified as discrepant in order to develop and implement programs to reduce these discrepancies. The context for this assessment must be the society from which the child has been removed. The purpose of evaluation is to determine the extent to which the program has been successful in achieving these goals.

In the area of basic skill development we would suggest the purpose of needs assessment to be threefold:

1. To identify a set of skills which meet society's expectations for minimum functional competency.

2. To identify those skills in which the student does not achieve minimum expected competency.

3. To establish progress and performance goals for achieving these competencies.

In this context the data base for program evaluation is the objective

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[5] Although these discrepancies are usually not identified as academic they are frequently school related, i.e. school attendance. The corollary of such a problem is often decreased academic achievement.

measurement of the student's rate of progress and/or performance on the identified competencies.

In summary, whereas the primary goal of Title I programs in general is to increase student performance to a level commensurate with age grade mates, we propose that the primary goal of N&D programs should be to assist students in the development of competence in those skills which have been identified as important and in which they have been judged discrepant.

The Model

The conceptualized framework for the development of such programs is an adaptation of the evaluation model first proposed by the Center for The Study of Evaluation (Klein, Fenstermacher, & Aiken, 1971) called Data Based Program Modification (Deno & Mirkin, 1976). The evaluation model is shown in Figure 1. There are identified five decision areas and five concomitant program (data-gathering) phases:

DECISION AREA	PROGRAM PHASE
Problem Selection	Initial Needs Assessment
Program Selection	Program Planning
Program Operationalization	Implementation Evaluation (Intervention)
Program Improvement	Progress Evaluation (Intervention)
Program Certification	Outcome Evaluation (Nonintervention)

Fig. 1 Evaluation model used in data-based program modification. Source: S. Klein, G. Fenstermacher, & M.C. Alkin, The Center's changing evaluation model. Evaluation Comment, 1971, 2 (4).

Decision Areas

Each decision area is addressed to the solution of a different question. The areas and the related questions as they apply to Title I N&D projects are as follows:

Problem selection.	What are the problems that imply the need for Title I service? (i.e. What skills must the student achieve to function effectively?)
Program selection.	What program plan is likely to be most effective in solving the problem(s)? (i.e. What can be done to help the student achieve the necessary skills to function effectively?)
Program operationalization.	Is the agreed-upon program being implemented as planned? (i.e. Is the program actually teaching the skills which have been identified?)
Program improvement.	Does the program as implemented appear to be moving us to problem solution? (i.e. Has the program helped this student make adequate progress in achieving skills? Are there other programs that could be implemented?)
Program certification.	Was the problem(s) solved through provision of Title I service? (i.e. Does the student now have sufficient skills so that further participation is not required?)

Program Phases

Each program phase requires data gathering as the basis of decision making in the related decision area. The purpose of data gathering in each phase is shown in Table 1.

Table 1

Purposes of the Five Data-Gathering Phases

Decision Area	Program Phase Purpose(s)
Problem Selection	Initial Needs Assessment: 1. Clarify what performance expectations are held for the student. (Usually outside the institution). 2. Assess the discrepancy between performance expectations and the student's actual level of performance. 3. Establish eligibility for the program based on the discrepancy and its importance. 4. Establish a baseline for evaluating the success of the anticipated program.
Program Selection	Program Planning: 1. Specify performance objectives for student. 2. Plan strategies for achieving the goals. 3. Recommend arrangements for implementing the plan.
Program Operationalization	Implementation Evaluation (Intervention): 1. Implement program as planned. 2. Collect and record data on performance objectives at least monthly. 3. Make program changes as indicated by data on performance objectives. 4. Determine whether the planned program is being implemented.
Program Improvement	Progress Evaluation (Intervention): 1. Appraise progress on performance objectives. 2. Revise programs that, apparently, are not affecting performance greatly.
Program Certification	Outcome Evaluation (Nonintervention): 1. Establish accountability for the success of the program in reducing the discrepancy established during the intake assessment.

The activities shown in Table I are implemented through four basic processes. These are shown in Table 2.

Table 2

Process	Focus
1. Measurement	Student performance: to provide an objective, precise, and quantitative description for use in evaluation.
2. Evaluation	Measurement data which has been collected during each phase of the program.
3. Communication Collaboration	Any or all of the following: Classroom teachers, parents, students, and involved professionals: to establish performance expectations, plans for service, satisfaction with program progress, and program outcomes.
4. Training	Regular class teachers, aides, volunteers, and peer and cross-age tutors: to develop, implement, and manage programs for an individual or group.

A general overview of the flow of activities conceptualized by the model follows:

Decision Area: Problem Selection

Program Phase: Initial Assessment

Initial assessment occurs when the student is first admitted to the institution. Procedures are initiated for interviews with the student, counselor, psychologist, regular education teacher and any other interested and involved professionals. The measurement of specific academic and social behavior are begun in those skill areas which have been identified by all interested parties as important. These may include basic skills in reading, survival skills in reading, basic math skills, survival math skills, spelling, composition, etc. The student's current level of mastery on this specified set of skills is assessed.

It is assumed that any individual program, to be successful, must begin by determining where the student is presently functioning and then move him from that point as rapidly as possible. Assessment of this type has the considerable advantage of placing the student within an instructional materials sequence and, at the same time, reducing the hiatus between assessment and remediation. The process involved is a direct extension of the kind of "mastery learning" formulation articulated by Bloom (1968). The entire formulation fits neatly with the notion that the student's problem is not a condition residing solely within him; rather, the discrepancy that exists is between his performance and the performance desired or required from him. While the discrepancy between the student's probable level of mastery and age and grade-level expectations, or "normative" performance, may be noted, decisions regarding the importance of the problem and the student's eligibility for Title I service, are based on the discrepancy data

gathered on those skills which have been agreed upon are important for the individual student.

Decision Area: Program Selection

Program Phase: Program Planning

The program planning phase involves the specification of performance objectives to be achieved during the program, selection of alternative teaching strategies to achieve these objectives, and the organization of administrative arrangements for achieving the programmatic goals. A plan for measuring performance is also specified.

Each person concerned with the student's program and progress is asked to review the plan and to indicate her/his approval or offer suggestions for change/improvement. The plan is developed by the Title I staff person, who is responsible for circulating it and negotiating any proposed modification.

Decision Area: Program Operationalization
Program Adjustment

Program Phase: Implementation Evaluation
Progress Evaluation

During the implementation and progress evaluation phases, attempts are made to ensure that the planned program is carried out as intended. The rate at which goals are achieved are measured and help to determine whether alterations or modifications in the student's program are needed. Judgments of skill acquisition are based on predetermined criteria for mastery for this student. Measurement of achievement of objectives is taken at least monthly. The student's progress is assessed and summarized, and the effectiveness of the program is evaluated. Other plans are implemented if the program has not resulted in the agreed upon goals.

Decision Area: Program Certification

Program Phase: Outcome Evaluation

Decisions regarding program termination are evaluated in terms of the extent and rate at which the stated discrepancies have been reduced, other service is available for the student, and the satisfaction of all parties involved. Recommendations are made to those persons to whom future responsibilities for the student's education have been assigned, i.e. the regular class teacher. These recommendations are based on the data which has been collected throughout the program.

In summary, the framework for the organization of Title I Resources at institutions for neglected and delinquent students is the individual student. The basic point of view is that discrepancies in relation to his/her academic and social development are identified by people who occupy significant places in his/her life space. Program plans are formulated and require that identified discrepancies be measured. Thus the effect of the program modifications in reducing those discrepancies is continually monitored and evaluated. When performance discrepancies have been reduced to the point where they no longer are considered to be important, the point has been reached where program modification can be certified as complete or successful.

If Title I programs are to function effectively in support of students, the persons responsible for the development and management of these programs must learn to understand and use a systematic decision making process. The decision making model conceptualized here provides the framework for developing such programs and, subsequently, for operating these programs.

The salient differences between this system and the present procedures for

Title I N&D programs are shown in Table 3.

Table 3

Summary of Salient Features

	Data-Based Program Modification	Title I
INITIAL NEEDS ASSESSMENT	1. The student's academic and social behavior is always assessed in relation to explicit expectations for performance which have been agreed upon (by teachers, parents, counselors, students, and other concerned professionals). 2. The importance of the "problem" (i.e. the discrepancy between expectation and actual student performance) is determined through interpersonal negotiations among concerned parties (i.e. student, parents, professionals), and the actual measurement of academic objectives and social behaviors which have been established in these negotiations.	1. Teacher's judgment is the basis for assessment regarding performance in basic skills. Students who are considered to have serious problems receive higher scores than those with poor, everage or excellent skills. When the teacher data is not available the student's skills are assessed in terms of grade equivalent scores on a Standardized Achievement Test. 2. The importance of the problem is determined by the score achieved in needs assessment. Cut off scores are the same for all programs.
PROGRAM PLANNING	3. Programs are planned to reduce the discrepancy between desired performance and actual performance objectives for each student.	3. An individual plan is written for each student. Performance objectives are written in terms of number of months of progress/month achieved on a standardized test and/or levels of change based on teacher judgment.
PROGRAM IMPLEMENTATION	4. Progress and performance are measured frequently.	4. Performance is measured at program admission and program completion or release from the institution.
PROGRESS EVALUATION	5. Programs are made responsive to changes in performance through frequent reviews and evaluations. Decisions are data based. 6. Program recommendations focus on "what works" for the individual child and content validity is obtained by making the assessment process and the remediation process the same.	5. Procedures for program change are not specified. 6. Procedures for making program changes are not specified.
OUTCOME EVALUATION	7. Because evaluation of student progress is based on the summation of changes in performance on objectives, it is possible to determine if the supplemental intervention has been more successful than previous programs in reducing the discrepancy between student performance and expectations.	7. Evaluation of student progress is based on number of months of progress/month on Standardized Achievement Tests and teacher judgment of performance (when available.

B. Specific Procedures for Implementation of Data Based Program Modification[6]

The key element in Data Based Program Modification is continuous progress and performance measurement on specified objectives and evaluation of these measurements to determine program effectiveness and accountability. Continuous progress and performance measurement has been used successfully in, among other places, the Vermont Consulting Teacher Program (Egner & Lates, 1975) and the SIMS Title VIG Program in Minneapolis (Blackburn note 2). Support for continuous direct measurement as an evaluation tool is also supported in the literature. Lovitt (1970), among others, noted that "The more measurement that is obtained, the more often the pupil may be evaluated and the greater the opportunity for intelligent revision of procedures."

In the Title I programs we have described, students have typically been tested only at the beginning and end of the instructional sequence. Under such conditions, it is not possible to draw conclusions about the relation between changes in instruction and changes in student behavior. For example, if pre-posttesting has been used with a math program, has student A shown a large improvement because of the program or because he started to wear glasses? Has student B shown negative improvement because of the program or because he was emotionally upset when the posttest was administered? With frequent measurement, it is possible to observe effects while the program is in progress. This enables the teacher to distinguish planned from unplanned effects; observe the form of the treatment over time; as well as summarize and evaluate program effects at any point. The teacher is able to test "hunches" (hypotheses) about what might help increase student progress and performance and to make instructional decisions on the basis of objective data. The program evaluator has a ready source of information regarding program effectiveness. It is our opinion that the highly unstable nature of the N&D project population make these programs particularly

[6] Only those aspects of the model which relate to needs assessment and evaluation will be described.

appropriate candidates for the type of measurement and evaluation system used in Data Based Program Modification.

Continuous Feedback: Graphing Program Effects

A graph of actual progress or performance over time (time series data) provides the information that is needed to make critical decisions about the student's status in the instructional program. As noted earlier, the graphic relation between changes in the student's performance and changes in the program provides the data base for making evaluative judgments about the effectiveness of planned interventions.

In data based program modification, two basic graphs are used to record data:

1. Rate of Progress Graph.
2. Rate of Performance Graph.

Rate of Progress Graphs

A rate of progress graph displays the speed with which a student is mastering a set (usually, an ordered set) of instructional objectives to criterion. Essentially, it shows on the vertical axis the series of objectives the student is working toward and, on the horizontal axis, the time, by days, weeks, or months during which the student is engaged in the program. Any given point on the graph, therefore, shows when the student has achieved what objective. Equal interval graph paper (or a drawing of a graph with equal intervals) must be used. The progress graph is constructed by laying out the sequence of objectives to be attained on the vertical axis and the days, weeks, or months allotted for the attainment of those objectives on the horizontal axis.

Student progress is plotted cumulatively. At any time, therefore, the student's rate of progress and current level of mastery in the program sequence are illustrated graphically. It is also possible to estimate the trend of the student's progress if the same program were to be maintained. Lines which indicate projected (hoped for) rates of progress for the student in the curriculum can also be drawn. When the student's achievement is plotted on the graph we have a graphic illustration of whether the student is achieving at the projected rate. A Rate of Progress Graph is shown in Figure 3.

Rate of Performance Graphs

A rate of performance graph is designed to display changes in the student's proficiency on a single task over time. On the performance graph, the horizontal axis shows the time in days, weeks, or months during which measurements are made. Here, however, the vertical axis shows performance in relation to time (usually per minute). The vertical lines on the graph represent days of the week and the dark lines, the beginnings of weeks. The horizontal lines are equally spaced and may be designated to represent a number or percentage. A Rate of Performance Graph is shown in Figure 4.

In summary, the rate of progress graph is used to plot data on the amount (or rate) of progress the student is achieving in moving through a sequence of tasks. The rate of performance graph is used to plot data on changes in level of performance on a single or related set of tasks. When behaviors are identified for which a sequence has been established and for which definite expectations have been set, then discrepancy in the rate of progress should be measured. When interest is primarily in criterion performance (i.e. how well the student reads, writes, or computes), then discrepancy in the rate of performance should be measured.

The weekly progress graph shown in Figure 3 visually illustrates the discrepancy between desired placement on a set of math categories and the target student's actual placement on the same set of categories. The performance graph shown in Figure 4 is a visual illustration of the discrepancy in words read per minute in the newspaper between desired expecations and the target student's performance.

Calculating the Discrepancy

To calculate the discrepancy for a Rate of Progress Graph the following information is necessary:

1. The curriculum sequence or set of desired objectives.
2. Desired progress for the set of objectives (1 per week, per month, etc.).
3. The student's current mastery level.
4. A mathematical formula for determining the discrepancy between desired and actual progress.

The formula is: $\frac{\text{DESIRED PROGRESS}}{\text{ACTUAL PROGRESS}}$

When we divide we get a numeral which expresses how much less than desired the target student's progress is in achieving these objectives. We can calculate this discrepancy for Figure 3 as follows:

1. The number of objectives the student is expected to have mastered is 36.
2. The number of objectives the student has actually mastered is 12.
3. When we divide desired progress (36) by actual progress (12) we get 3 or 3x. The student has progressed at a rate which is 3x less than desired.

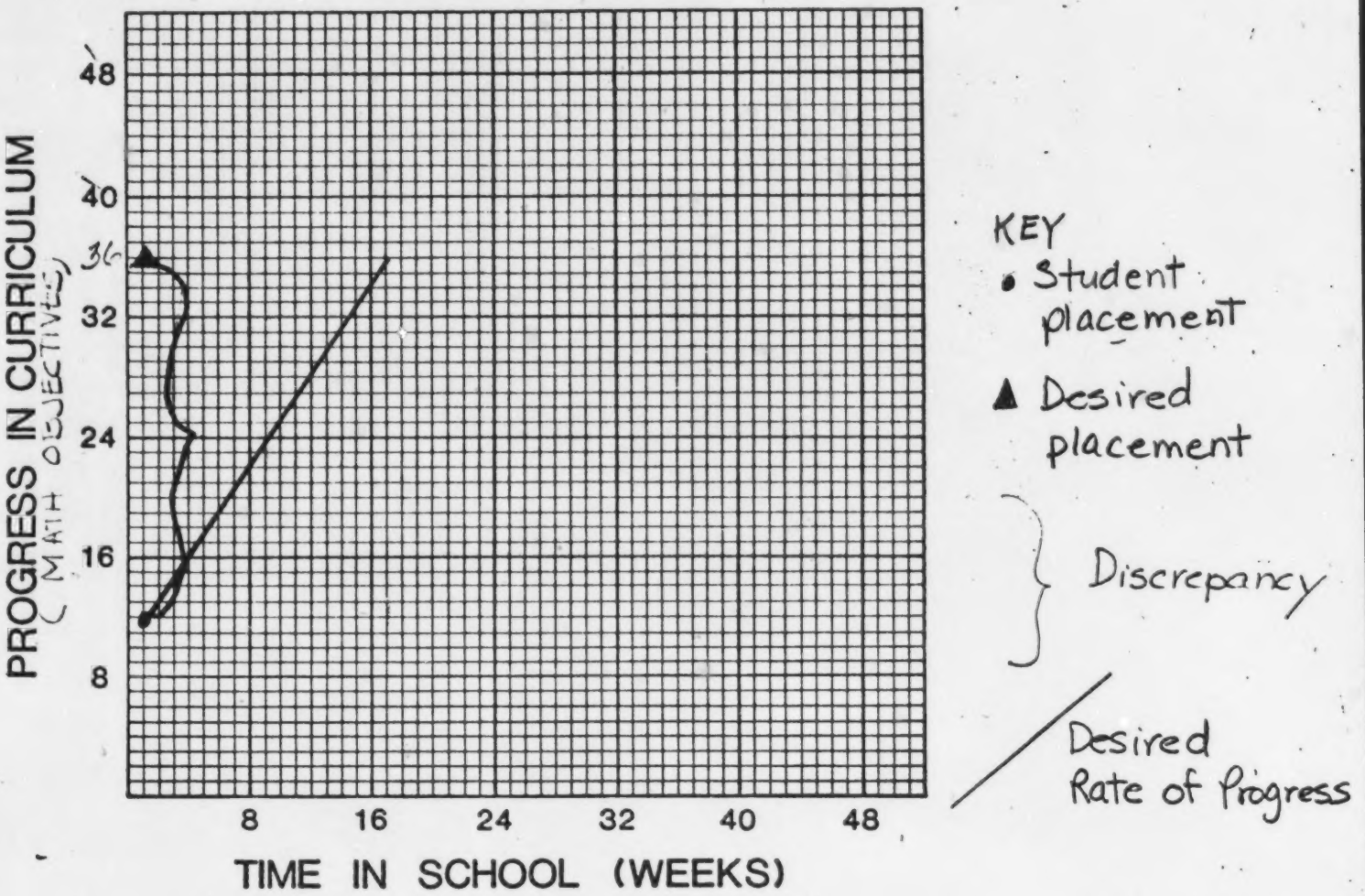
To calculate the discrepancy for a Rate of Performance Graph the following information is necessary:

1. The performance desired of the student on the skill or behavior of

42

NAME _____ SCHOOL _____ CURRICULUM _____

FIGURE 3: WEEKLY PROGRESS GRAPH



62

63

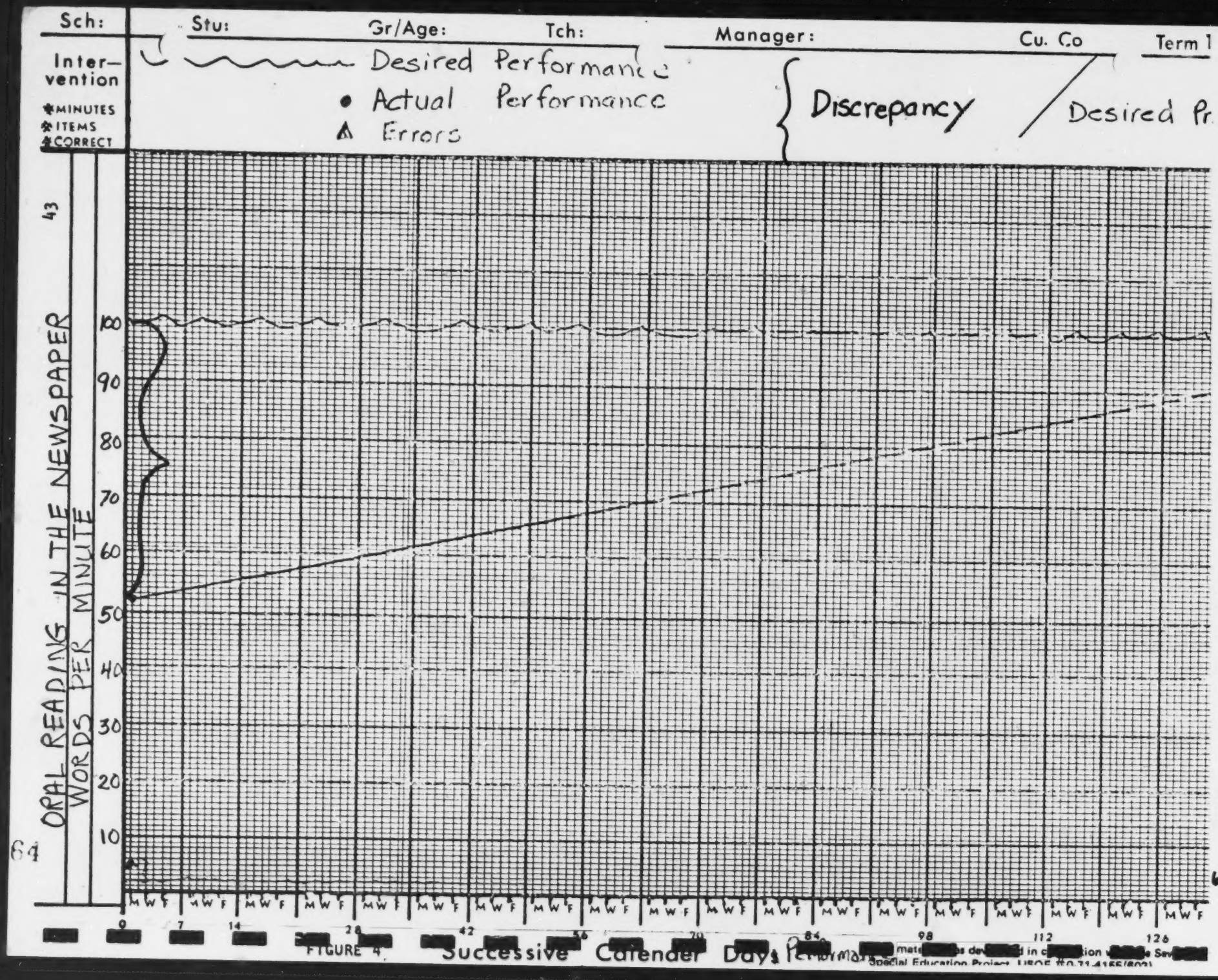

Sch:
Stu:
Gr/Age:
Tch:
Manager:
Cu. Co
Term 1
Inter-vention
*MINUTES
*ITEMS
*CORRECT
Desired Performance
Actual Performance
Errors
Discrepancy
Desired Pr
ORAL READING IN THE NEWSPAPER
WORDS PER MINUTE
43
100
90
80
70
60
50
40
30
20
10
M W F
0
7
14
28
42
56
70
84
98
112
126
Successive Calender Days

FIGURE 4

Interest.

2. The performance of the target student.

3. A mathematical formula for determining the discrepancy between desired and actual performance.

The formula for calculating the discrepancy is the same:

$$\frac{\text{DESIRED PERFORMANCE}}{\text{ACTUAL PERFORMANCE}}$$

For example, we can calculate this discrepancy for Figure 4 as follows:

1. The performance desired in oral reading in the newspaper is 100 wpm with 2 or fewer errors.

2. The performance of the target student's oral reading in the newspaper is 52 wpm with 5 errors.

3. When we divide desired performance (100 wpm) by actual performance (52 wpm) we get 1.9 or 1.9x. The student is performing at a rate which is 1.9x less than desired. This is the discrepancy.

Other examples:

$$\frac{\text{DESIRED PERFORMANCE}}{\text{ACTUAL PERFORMANCE}} = \frac{20/\text{min.}}{20/\text{min.}} = 1\text{x (there is no discrepancy)}$$

$$\frac{\text{DESIRED PERFORMANCE}}{\text{ACTUAL PERFORMANCE}} = \frac{30/\text{min.}}{60/\text{min.}} = 2\text{x}$$

Here the numbers must be reversed as the larger number must always be divided by the smaller. In this case, actual rate of performance is 2x faster than desired performance.

How does discrepancy information compare to grade equivalent information? On most N&D programs the approach for making decisions regarding eligibility for Title I service is to use grade equivalent scores. If the student placed two or more years below grade level he is considered eligible for service. The

evaluation of program effects is based on gains per month on the same test. Some of the differences between these two approaches have been summarized previously but will be summarized again along somewhat different dimensions in Table 4.

Table 4

	Discrepancy Measurement	Grade Equivalent Scores
Test Instruments	1. The curriculum in which the student is expected to perform is used to assess progress/performance.	1. Standardized achievement tests are administered containing samples of material at succeedingly more difficult levels.
Placement Comparisons	2. Number of objectives mastered in a sequence or performance on a specific task is measured. The student's placement or performance is compared with desired performance. The discrepancy (x faster or slower) between these two rates of progress or performance is calculated (i.e. a discrepancy of 3x slower means the student is progressing 3x more slowly than is expected of him.)	2. The referred student's placement is determined by using normative data from each grade. The grade equivalent score specifies that the student is achieving at the same level as average students at that grade level. (i.e. a grade equivalent score of 1.2 means that the student is achieving at the same level as average student in the 2nd month of 1st grade.)
Desired Progress Assessment	3. The number of objectives to be mastered or the increased frequency of performance needed is determined by dividing the number of months available for intervention by the number of objectives to be mastered or the amount of performance increase needed.	3. Performance objectives are written which specify number of months/month in the program gain expected for all students.
Evaluating Progress/ Performance	4. The discrepancy for the referred student is calculated at any point in the program by dividing desired progress or performance by actual progress or performance and comparing this discrepancy with entry level discrepancy.	4. Standardized - the same tests used for placement are re-administered. Number of months of gain/months in the program is calculated.

Determining Desired Rate of Progress or Performance

Once the discrepancy has been established its importance must be determined. If objectives are those which have been agreed upon and represent minimum desired progress, any discrepancy will be important and indicate eligibility for service. When student progress/performance is assessed on objectives which extend beyond minimum expectations it is the magnitude of the discrepancy as well as the importance of these objectives for the individual student which will determine eligibility. It is the responsibility of individual sites to prioritize goals for programs as well as for individual students.

Calculating Desired Rate of Progress

What should be the desired rate of progress for the student in Figure 3? To calculate desired rate of progress the following information is necessary:

1. The number of objectives to be mastered.
2. Time available for the intervention.
3. A mathematical formula for determining desired rate of progress.

The formula is:

$$\frac{\text{\# of objectives to be mastered}}{\text{Time for intervention}}$$

When we divide we get a numeral which expresses how many objectives must be mastered per unit of time (days, weeks, months). We can calculate desired rate of progress for Figure 3 as follows:

1. The number of objectives the student must master is 24.
2. The time for the intervention is 4 months or 16 weeks (average length of stay of students in the institution).
3. When we divide number of objectives to be mastered (24) by time for intervention (16) we get 1.5. The desired rate of progress for this student is 1.5 objectives per week or 3 objectives every two weeks.

The performance objective for this student will read as follows:

> Every two weeks when given a test containing a random sample of problems from three objectives in the sequence the student will demonstrate mastery of these objectives with 90% accuracy (or at the rate of 5 problems/min.).

An alternative form of the objective might read as follows:

> For every two weeks in the program the student will demonstrate mastery of three objectives with 90% accuracy for each objective.

What should the desired rate of performance be for the student in Figure 4? To calculate desired rate of performance the following information is necessary:

1. The difference between desired and actual performance.
2. Time available for intervention.
3. A mathematical formula for determining desired rate of performance.

The formula is: $\frac{\text{Difference between desired \& actual performance}}{\text{Time for intervention}}$

When we divide we get a numeral which expresses how much faster the student must perform for each unit of time (days, weeks, months). We can calculate desired rate of performance for Figure 4 as follows:

1. The difference between desired and actual performance is 48 wds/min.
2. The time for the intervention is 6 months or 24 weeks (average length of stay of students in this institution).
3. When we divide the performance difference (48) by time for intervention (24 weeks) we get 2. The desired rate of performance for this student to reach 100 words/min. in 6 months is to read two words faster per min./week.

The performance objective would be written as follows:

Each week when given a newspaper the student will read a randomly selected article at a rate which is 2 wds./min. faster than the previous week.

The same procedure could be followed to determine decrease in error rates, but since the discrepancy is so small a much shorter intervention length would be postulated.

Program Evaluation

Once objectives have been established measurement data is easy to collect and graph. Program data is available for evaluation at any time. If the planned program is not achieving the objectives at the desired rate[7], changes in the program should be implemented. A line is drawn on the graph each time a change is made so that data can be summarized for each program change. Should a student be released by the courts or run from the institution, data is available on his/her progress/performance for the time spent in the program. Program evaluation is therefore always calculated for 100% of the students participating.

[7] We recommend evaluating data at least monthly.

C. Recommendations for Fulfilling Grant Application Requirements

Needs Assessment

In order to avoid the problems inherent in performing needs assessment on a highly unstable population of students it is recommended that initial needs assessment be performed at two levels; assessment for purposes of the grant application and assessment for selection of students to be served in the program (as described in Part B).

The assessment for the grant application should be the average number or percentage of students previously served in the Title I program. The rationale for this recommendation is the Federal regulation which specifies that "..... Each application shall contain....a needs assessment...based on the best available data concerning the needs of the children particularly as indicated by objective measures of educational deficiency in reading, written communication and mathematics."

Due to the instability of the institutional population, the best available data concerning the needs of the children in institutions appears to be the average number or percentage of students served over time in the program. This estimate is based on objective data collected throughout the year, rather than single samples of behavior collected at the time of initial assessment. In the case of institutions, where needs assessments are frequently based on standardized test data, estimates appear to be particularly unreliable.

During FY 1975-76 and 74-75, HCHS served approximately 60% fewer students than estimated. St. Joseph's Home school served 120% more students than estimated. Jonathan Group Home served 50% more students than estimated. United Indians Group Home served 400% as many students as estimated and Lutheran

Friendship School served 10% more students than estimated. In all cases, except HCHS, where overestimates were made, the current needs assessment procedures as practiced at the institutions in question resulted in underestimates of actual service needs. In the case of United Indians Group Home this problem prompted the Title I tutor to hire a volunteer who was paid from the tutor's own funds. In other cases students received fewer hours per day of instruction than needed.

The logic of using percentage served of total enrollment, or average number of students served over years, as the basis for funding seems indisputable. This eliminates the duplication of effort involved in identifying students in the spring who will not be served in the fall, and appears to more accurately reflect the real needs of programs.

Progress/Performance Objectives

It is recommended that each site or group of sites in consultation with other concerned community and professional persons, establish minimum required progress and/or performance objectives in the basic skill areas of reading, math, and written communication.

An example of one set of objectives is shown in Figure 5. A skill sequence for which objectives can be written is shown in Figure 6. The objectives should be listed in the application with criteria for mastery stipulated. The procedures which will be used to assess students and evaluate progress should also be specified.

Figure 5

Math "Survival" Objectives

		Day 1	Day 2	Day 3	Total
1.	Given specific item cost, makes correct change from $1.00.	C	C	C	3
2.	Given specific item cost of less than $1.00, correctly makes change from $5.00.	C	C	C	3
3.	Given specific item cost of more than $1.00, correctly makes change from $10.00.	C	C	C	3
4.	Given unit price of three different items from fast food take-outs, correctly computes multiple unit prices and total, including 4% sales tax.	X	C	C	2
5.	Given unit prices of more than $50.00 of three different items, correctly computes total purchase price, including sales tax.	X	C	C	2
6.	Given single recipe, correctly halves and doubles portions.	C	C	C	3
7.	Given empty check blank, correctly filled in specific amounts.	X	X	C	1
8.	Given correctly filled in check blank, accurately recorded amount to compute new balance.	X	X	X	—
9.	Given correctly filled in check deposit slip, accurately record amount to compute new balance.	X	X	X	—
10.	Given correctly filled in check deposit slips, and cancelled check blanks, accurately reconciled bank statement.	X	X	X	—
11.	Given unpaid charge account balance, accurately computes interest to be paid.	X	X	X	—
12.	Given purchase price and monthly installment charges; accurately determines less expensive purchase plan.	X	X	C	—

Mastery of an objective: 100% accuracy on a sample of at least 3 problems from that objective on 2 out of 3 days.

Figure 6

Gallistel-Ellis, Phonetically Regular Words

A Skill Sequence for Which Performance Objectives Can be Written

1. CVC (a)
   (b,s,f,m,t)
2. CVC (i)
   (h,j,n,p,l)
   (b,s,f,m,t)
3. CVC (o)
   (r,hard-g,d)
4. CVC (u)
   (hard-c,k,ck,nd
   w,qu)
5. CVC (e)
   (All single
   consonants
   except v,y,x,z)
6. CVC (i)
   (b,c,d,f,g,h,j,
   k,l,m,n,p,r,s,
   t,v,w,x,y,z;ck)
7. CVC (a-i)
   (all single
   consonants)
8. CVCC (a-i)
   (ck,ss,ff,ll,zz)
9. CVCC (a-i)
   (ing,ang,ink,
   ank)
10. CCVCC (a-i)
    (sh,th,ch,wh,
    ck,ng,nk)
11. CVC (o)
    (all single
    consonants)
12. CVC (a-i-o)
    (all single
    consonants)
13. CVCC (u)
    (ck,ll)
14. CVCC (u)
    (ct,ff,ft,ng,
    th,ss)
15. CVC (u-u)
16. CVC (u-e)
17. CVC
    (a-e-i-o-u)
18. CCVCC (a-i-o)
    (beg. blends:
    st,sc,sp,sk,sl
    sw,sn,sm,bl,cl,
    ff,gl,pl,sl,br,
    cr,dr,fr,gr,pr,
    tr,thr,shr,sw,tw,
    dw,qu,tw)
    (digraphs: ch,sh,
    th,wh)
    (ending blends:
    ll,ck,ss,nk)
19. CCVCC (a-i-o)
    (beg. blends:
    scr,spr,squ,str,
    spl)
    (ending blends:
    ng,sh,ll,nk)
20. CVCC
    (a,e,i,o,u)
21. y and e
    (at the end of
    one syllable
    words)
22. Magic e
    (single
    consonants)
23. Magic e
    (double
    consonants)
24. Soft c and g:
    (ch,dge,ge,
    nge,ce,nce
    se-z)
25. CVVC
    (ai,ay,ew,ea
    oe,ee,ea,ui
    ue,ie,igh)
26. CC VVc
    (ai,ay,ow,ea,
    oe,ee,ea,ui
    ue,ie,igh)
27. CVVC
    (oo,ou,ew,au,
    aw,ol,oy,ew,
    eu,all,alk)
28. CCVVCC
    (oo,ou,ew,au,
    aw,ol,oy,ew,
    eu,all,alk)
29. r with short
    vowels
30. r with long vowels
31. CCVVCC
    (ie,ea,neigh,
    augh,ind,ild,
    old)
32. (wr,gh,kn,gh,gn)
33. Closed syllables
    with y and (c) le
    endings and with
    2nd closed
    syllables.
34. Two closed and
    open syllables
    with y, ly, le,
    s,es,ed,er,
    est,ing)
35. Soft c and g
    in two syllable
    words
36. Prefixes:
    (a,ai,ad,dd,ex,
    in,re)
    Suffixes:
    (ar,er,or,tion,
    sion,ness,ment)
37. Multisyllable
    words

Year End Summary Evaluations

It is recommended that each site summarize the following information on all students:

1. Number of students who achieved objectives.

2. The rate at which these objectives were achieved (i.e. x faster or x slower than desired).

3. Magnitude of change in discrepancy (i.e. a change from 4x to 2x decrease or ½. The discrepancy is only ½ what it was prior to participation in the program.)

The procedures we are proposing are entirely in compliance with the Federal Regulations which request the following information:

...A statement of the objectives of the proposed program, the related performance criteria and the procedures and instruments by which effectiveness of the program will be evaluated in accordance with §116.33 of Part 116.

...The estimated number of children to be served by age and grade...

... §116.33 states in part as follows:

...at least annually an evaluation of the effectiveness of the program.... (shall be made)[8] including appropriate performance criteria and the instruments and methods to be used to measure objectively changes in the educational achievement of the children who will participate in the program.

...The measurement of educational achievement of participating children shall be carried out with regard to objective standards or norms. The

[8]Author's addition.

type of measurement used by a State or local educational agency shall give particular regard to the requirement under §116.7 of subpart B that the State educational agency report to the commissioner on the effectiveness of programs in the State....

§116.7 states in part as follows:

...The State educational agency shall submit to the commissioner a report evaluating the effectiveness of programs and projects under Title I....(to include) a summary of the results of objective measurements of changes in the educational attainment of educationally deprived children who participated in programs and projects.

Federal Register, Vol. 40 #48, pp. 11475, Col. 1

III. Cost of Implementation

It is evident that the proposed recommendations cannot be implemented without additional expenditures of time, effort and money. Several questions must be considered.

1. What is the time and money expenditure necessary to provide adequate inservice training to Title I staff?

2. What additional time and effort expenditures are necessary to implement the procedures?

3. Will implementation of these procedures provide a sufficiently greater payoff in student achievement to warrant the additional costs?

Without direct knowledge of the present level of skill of Title I staff, it is difficult to estimate the time needed for training. Our experience in training would lead us to suggest at least 2 full workshop days, several visits by workshop staff to individual sites and several subsequent inservice meetings.

Additional teacher effort requirement is equally difficult to assess in advance. The teacher who keeps fairly detailed records may find it easier and less time consuming to do monthly or semi-monthly measurements. Those who have not kept any records may find the procedures more time consuming to begin with, but ultimately gain a more systematic method for organizing instruction. Students, volunteers, peer and cross age tutors all have been trained at some time to collect and record measurement data.

With regard to the third question, a statistic of interest is data from the Vermont Consulting Teacher Program (Egner & Lates, 1970). Regular class teachers were assisted in implementation of 1,088 individualized programs for exceptional students using continuous progress measurements. These programs

resulted in successful mastery of essential skills and exit from special service for the students served. Interventions implemented by Special Education Resource Teacher (SERT) interns (N = 24) during a two year period all resulted in a decrease in discrepancy for students served.

Were these procedures to be adopted for the Title I N&D programs in Minneapolis program evaluation would provide the necessary information for comparative study. A proposed time line for implementation is shown in Figure 7.

Figure 7

Fall	Winter	Spring & Summer
Inservice Workshops	On site visits	Inservice Meetings
Generate Objectives	Implement Procedures	Complete Grant Application FY 1977-78
		Complete Summary Reports to include both types of data for comparison

FY 1976-77

If this time line were to be adopted both types of data could be examined to answer such questions as:

1. Which method yielded more accurate and complete data on the number of students served and the number on which complete data is available?

2. What percentage of students selected by the present procedures would also be selected by the new procedures? (i.e. Is there a great deal of overlap among the students selected by either method or are the populations fairly distinct?)

3. Is the FY76-77 data different from the data collected in previous years on the same test instrument (i.e. Is there a greater payoff in student achievement?)

Conclusion

As we review the questions listed in the introductory statement it is evident that the first four questions have not been answered affirmatively.

1. The present procedures are not accurately selecting students for the programs.

The unstable nature of the N&D population mitigates against accurate pre selection of students for programs. Inconsistent application of the assessment and evaluation procedures has further exacerbated this problem. There is a discrepancy between the students selected in the needs assessment procedures and the students selected for service.

2. The measures used to evaluate performance are not appropriate for N&D objectives.

Teacher judgement regarding performance and gain scores on achievement tests are the measures presently used to evaluate Title I program effectiveness.Teacher judgement estimates lack persuasiveness within the institutional framework. The reference point of a 'normative' population is lacking.

Achievement tests yield grade equivalent scores. There is little evidence that gains reported in terms of gradeequivalents accurately reflect program effectiveness. A grade equivalent score of 7.0 does not provide assurance that the respondent is a functionally competent reader. The skills which have been mastered are not discernible from the test results. The test results allow us to conclude as follows: Given x standardized test the student performed at a level commensurate with that of average seventh grade students who participated in the norming of the test.

When we realize that for many students, the period spent in the institution represents the most consistent period of school attendance, the previous statement seems somewhat less meaningful than one might hope. The objective of developing functional skills within the framework of development of responsibility for school performance;and increased motivation to attend;and participate in school are primary to the N&D programs. The effectiveness of programs in achieving these objectives must be evaluated. At present this is not the case.

3. The effects which have been observed on achievement tests are not always reliable estimeates of pupil achievement in the program.

Overexposure to standardized achievement tests; the circumstances under which tests are administered; anxiety with regard to failure; all contribute to the inaccuracy of observations which are based on single samples of behavior. We have evidence of extremely poor test retest reliability in one instance and in other instances we cannot determine reliability due to lack of data. Variability of student performance is a factor of considerable concern with this population of students as well. Measurement procedures must be sensitive to this variability through multiple sampling of performance.

4. Achievement gains cannot always be attributed to the planned program and may be an artifact of the evaluation procedures.

We have had some difficulty identifying the variables which are responsible for changes in performance. In some cases this has been the result of poor channels of communication with regular school programs; with the concomitant problem of not having any knowledge of the programs at school in which the student may be participating. We have also identified programs in which the 'regular' class teacher and program have assumed responsibility for the instruction in the areas in which achievement is measured without any input from the Title I program.

In addition, where implemented, teacher judgement measures have been made within the context of the institutional population, which by its very nature is considerably discrepant from the normative framework. Judgements are at best highly arbitrary estimates of performance.

Finally, gain scores as they are presently reported, are not representative of the population as a whole that has been served, but only of those students who have remained to be post tested. Gain scores are also not rported in terms of past progress or progress needed. A reported gain of three months per month of school may signal excellent progress for one student and inadequate progress for another. Thus what appears as excellent progress is merely an artifact of the way in which the data is being reported.

With regard to the last question proposed in the introduction we have concluded that this question alone can be answered affirmatively.

5. Other evaluation procedures can be devised which will more accurately select students the program is intended to serve and more reliably measure program effectiveness.

We have recommended a management by objective approach which includes frequent measures of performance. This approach, called Data Based Program Modification, assures data collection and evaluation for all students served by the program on the objectives of interest for each student. The procedures embrace both instruction and evaluation needs which have been identified as important for N&D programs.

We recognize that no problem is a single solution problem. There are undoubtedly as many other evaluation designs which could be recommended as there are evaluators interested in creating evaluation designs. We have examined numerous alternatives and discarded each of them for lack of providing a complete answer to the problems posed. We believe the solution we have offered to be a viable one and trust that it will be given due consideration.

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